



**FINAL STAGE 1 SOURCE CONTROL EVALUATION
WORK PLAN
RP - PORTLAND SITE**

October 18, 2005

Submitted to:



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WORK PLAN
RP - PORTLAND SITE**

October 18, 2005

Submitted to:

Oregon Department of Environmental Quality
Northwest Region
2020 S.W. 4th Avenue
Portland, Oregon 97201

Submitted for:

SLLI
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Morrisville, North Carolina 27560

Submitted by:

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0-61M-107030/Phase 69



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Mr. Tom Roick
Project Manager, Cleanup & Portland Harbor
Department of Environmental Quality
2020 S.W. 4th Avenue
Portland, Oregon 97201

Dear Mr. Roick:

**Re: Final Stage 1 Source Control Evaluation Work Plan
RP - Portland Site**

On behalf of SLLI, AMEC Earth & Environmental, Inc. (AMEC) is submitting to the Oregon Department of Environmental Quality (DEQ) the enclosed Final Stage 1 Source Control Evaluation (SCE) Work Plan (Stage 1 SCE WP). The investigative tasks described in this Stage 1 SCE WP support evaluation of groundwater adjacent to the Willamette River (River) near the Rhône-Poulenc (RP) Portland Site (Site), as agreed to in a June 1, 2005 meeting between SLLI and DEQ. This Stage 1 SCE WP also includes the SCE Field Sampling Plan (Stage 1 SCE FSP) as Appendix A. The Stage 1 SCE FSP includes details on sample collection methodologies and planned analysis for the study area.

Following are responses to the DEQ letter dated August 1, 2005, providing comments on SLLI's Draft Stage 1 Source Control Evaluation Work Plan dated July 1, 2005. To facilitate your review, DEQ's comments are reproduced in their entirety, followed by SLLI's responses.

DEQ Comment No. 1:

Response to DEQ Comment No. 1. Please indicate at the beginning of the Section 1.1 Data Quality Objectives in the Work Plan, that the primary goal of the source control evaluation is the collection of data necessary to evaluate the scope of source control actions needed to limit impacts from the RP Site groundwater plume to the Willamette River.

SLLI Response:

Section 1.1 of the Stage 1 SCE WP has been modified to include source control action evaluation as a primary objective of the source control evaluation.

DEQ Comment No. 2:

Response to DEQ Comment No. 7. To clarify our previous comment regarding the Outfall 22B Storm Sewer, DEQ is concerned not only about groundwater infiltration, but also potential preferential contaminant migration along the outside of the storm drain through backfill material. SLLI should consider this pathway and the need for investigative borings to evaluate the pathway in the source control evaluation.

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SLLI Response:

To SLLI's knowledge, no groundwater seeps are present around the pipe at the outfall; however, the constant presence of discharge through the outfall may inhibit the ability to identify seeps. SLLI proposes to complete an Interim Remedial Action Measure (IRAM) that addresses groundwater infiltration into the storm sewer and to mitigate the potential for a preferential pathway within the storm pipe backfill. The scope of the IRAM and potential pathway mitigation has been presented to DEQ in the Draft Outfall 22B IRAM Work Plan dated October 6, 2005.

DEQ Comment No. 3:

Page 5, Section 2.4 and Table 1. A 5x multiplier should not be applied to Water Quality Criteria for screening. The benzene, 1,2-dichlorobenzene, and 2,4-dichlorophenol screening values listed appear to be 5x the May 20, 2004 DEQ Table 33A Water Quality Criteria Summary for human health consumption of water + organisms. While these are conservative values (without the 5x multiplier), DEQ has not approved them for upland source control screening. Please use the following values and revise Figures 7, 8, and 9 accordingly:

- 5.1 ug/L Benzene; 130 ug/L 1,2-Dichlorobenzene; and 29 ug/L 2,4-Dichlorophenol [derived from DEQ Table 33A Water Quality Criteria Summary, Human Health For Consumption of Organism only, divided by 10 site-specifically for Portland Harbor].
- Method Detection Limit for Dieldrin and 2,3,7,8-TCDD [as shown on Table 1 of the Work Plan].
- 360 ug/L 2,4-D [lacking water quality criteria or appropriate literature values use EPA Region 9 Tap Water PRG without a 5x multiplier]

The report should include an evaluation of total chlorinated benzenes [see DEQ Table 33C Water Quality Guidance Values Summary]. DEQ expects that between completion of the field work and preparation of a report in Winter/ Spring 2006, the Portland Harbor Source Control Strategy will be available and can be used at that time to finalize the appropriate screening level values.

SLLI Response:

Figures 7, 8, and 9 have been modified per DEQ's request. The Stage 1 SCE technical memorandum will include an evaluation of total chlorinated benzenes.

DEQ Comment No. 4:

Page 10, Section 4.0, Monitoring Well Installation and Section 6.0 Transducer Study. Prior to finalizing the Task 2 monitoring well locations and Task 4 transducer study wells, please update DEQ on the field work results by email, including any field decisions or proposed changes from the current work plan.

SLLI Response:

Oh behalf of SLLI, AMEC will inform DEQ of planned well locations, field work results and any field decisions or proposed changes from this Stage 1 SCE WP via telephone or email, as appropriate.



DEQ Comment No. 5:

Figures 7, 8, and 9. Aside from the revisions requested in comment 3 above, figures showing where RP groundwater contaminant plumes exceed screening criteria are sufficient for the Work Plan. The follow-up report should include figures that show not only where plumes exceed screening levels, but also the estimated full downgradient extent of RP contaminant plumes, based on the new data collected.

SLLI Response:

Following the completion of the Stage 1 SCE tasks, updated groundwater concentration figures will be included in the Stage 1 SCE technical memorandum.

Modifications to the scope of work to be completed at the Siltronic property were present to DEQ in a letter dated September 22, 2005 and approved by DEQ in an email dated September 22, 2005. These modifications have been incorporated into this Final Stage 1 SCE WP.

Please find enclosed two bound copies and one compact disk containing a Portable Document Format file (pdf) of this work plan. If you should have any questions, feel free to call Roger Gresh or Teresa Wilson at (503) 639-3400.

Sincerely,

AMEC Earth & Environmental, Inc.

SIGNATURES PENDING SUBMITTAL TO DEQ

Roger T. Gresh, P.G.
Project Manager

Teresa A.R. Wilson
Task Manager

Encl: Final Stage 1 Source Control Evaluation Work Plan

CLJ/lp

c: R. Ferguson, SLLI
S. Dearden, Sanofi-Aventis
J. Benedict, CHBH&L



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1.0 INTRODUCTION

This Final Stage 1 Source Control Evaluation (SCE) Work Plan (Stage 1 SCE WP) presents the data quality objectives (DQOs) and describes the scope of work for investigative activities to be conducted adjacent to the Willamette River (River) near the Rhône-Poulenc (RP) Portland Site (Site). The RP property is located at 6200 N.W. St. Helens Road in Portland, Oregon (Figure 1). The SCE investigation is being conducted in response to a letter from the Oregon Department of Environmental Quality (DEQ) dated February 22, 2005 requesting SLLI to conduct an "investigation between the existing downgradient groundwater monitoring wells and the river...to evaluate the extent and concentration of RP-related contaminant discharges to the Willamette River" (DEQ, 2005a). The scope of work for this Stage 1 SCE WP was presented to DEQ in a letter dated May 20, 2005 (AMEC, 2005a) and was discussed in a meeting between DEQ and SLLI on June 1, 2005. DEQ conditionally approved the scope as presented in the May 20, 2005 letter in DEQ's letter dated June 9, 2005 (DEQ, 2005b). The portion of the Stage 1 SCE scope of work to be completed at Arkema Lots 1 and 2 was approved by DEQ in a letter dated July 20, 2005 and the remainder of the work plan was approved in a letter dated August 1, 2005 (DEQ, 2005c,d). Modifications to the scope of work to be completed at Siltronic were presented in a letter to DEQ dated September 22, 2005 and approved by DEQ in electronic mail dated September 22, 2005.

This Stage 1 SCE WP will be implemented according to procedures outlined in the Stage 1 SCE Field Sampling Plan (FSP) (Appendix A), the site-specific Revised Quality Assurance Project Plan (QAPP) dated June 13, 2001 (AMEC, 2001), the site-specific Health and Safety Plan (HASP) dated June 24, 2005 (AMEC, 2005c), and any subsequent applicable updates to the QAPP and HASP.

1.1 Data Quality Objectives

The primary objective of source control evaluations is to collect the data necessary to evaluate the scope of source control actions. This Stage 1 SCE WP was designed to collect data needed to evaluate whether source control is warranted, and if warranted, the scope of the source control action(s).

The DQOs of the Stage 1 SCE are to:

1. Evaluate whether constituents are present in near-River groundwater at regulatory levels of concern;
2. Evaluate whether the constituents are from an RP source or other sources;



3. Evaluate the extent and the chemical makeup of the dioxin and chlorinated solvent plumes originating at the Arkema site flowing to the north/northwest and the potential for commingling with the RP plume;
4. Evaluate the connection, if any, between Siltronic's trichloroethylene (TCE) plume and deep TCE detected on their property;
5. Evaluate regional (Arkema, RP, Siltronic) groundwater flow direction within the Alluvium and Basalt Zones near the River; and
6. Evaluate source control actions associated with RP-related groundwater discharge to the River, if warranted.

In addition, data from this Stage 1 SCE will be used to support the planned bioremediation pilot study and facilitate transport evaluation.

1.2 Scope of Work

The scope of work to evaluate the above-listed DQOs has been divided into four tasks.

- **Task 1** - Drilling of reconnaissance borings near the River from the northwestern property boundary of Siltronic Corporation (Siltronic) to the southeastern boundary of Arkema, Inc (Arkema) along the riverbank of Lots 1 and 2, and at Arkema Lots 1 and 2 (Stage 1 SCE study area; Figure 2) by using both direct-push and sonic drilling technologies for lithologic logging and the collection of soil and groundwater analytical samples;
- **Task 2** - Installation of up to four monitoring well clusters adjacent to the River and three monitoring well clusters located on upland areas of Arkema Lots 1 and 2;
- **Task 3** - Groundwater sampling and water elevation monitoring of newly installed monitoring wells and selected existing monitoring wells; and
- **Task 4** - Transducer study to be conducted within selected newly installed monitoring wells and selected existing monitoring wells.

It should be noted that nearly all of the work proposed to be conducted for the Stage 1 SCE will be on property not owned or controlled by SLLI. All work on non-RP property is subject to obtaining access from property owners, as well as any applicable permitting required by local, state, and federal agencies. It is possible that scope changes and/or schedule delays may be forced by these other parties. SLLI will notify DEQ if scope changes or delays are realized prior to or during implementation of the Stage 1 SCE work.

2.0 BACKGROUND INFORMATION

This section describes the RP facility location, its operational history, and the Stage 1 SCE study area geology and hydrogeology.

2.1 Site Description

The RP property is located in Section 30 of Range 1W, Township 1N and is presented on the RP Site vicinity map, Figure 1. The Site is located in a heavily industrialized area northwest of Portland, and southwest of the River. The RP property has been divided into three investigative areas for ease in reference. The three areas are the Herbicide Area (HA), Insecticide Area (IA), and Lake Area (LA). Surrounding and nearby property owners include the City of Portland, Siltronic, Schnitzer Investment Corporation, Arkema, ESCO Corporation (ESCO), Gould Electronics (Gould), Metro, and Burlington Northern Santa Fe Railroad (BNSF). The Gould and Schnitzer properties, along with the LA portion of the RP property, are part of the Gould Superfund Site. The study area for the Stage 1 SCE includes portions of the Arkema, BNSF, and Siltronic properties.

2.2 Site History

The former RP facility was used for the formulation and/or manufacture of insecticides and/or herbicides from 1943 to 1991. Early operations at the RP facility included the formulation of railroad right-of-way treatment liquids, fertilizer and insecticide mixtures, and sodium arsenite liquids. In the early 1950s the formulation of organic products, including phenoxy herbicides, DDT, endrin, aldrin, and heptachlor began. Operations were expanded in 1956 to include the manufacture and formulation of 2,4-D acid and esters. During the 1960s, manufacture and formulation of MCPA acid and esters, and 2,4-DB acid, occurred at the RP facility, and in 1971 the manufacture of bromoxynil products was added.

Prior to 1966, treated wastewater was discharged to West Doane Lake (WDL), and from 1966 to 1976 treated wastewater was discharged to the River. Beginning in 1977, treated wastewater was discharged to a City of Portland publicly owned treatment works (POTW). RP began operation of a shallow groundwater extraction and treatment system in 1984, which discharges to the River under a National Pollution Discharge Elimination System (NPDES) permit issued by DEQ.

2.3 Physical and Hydrogeological Setting

The geologic framework of the RP Site and surrounding properties was determined from geologic logs of borings completed in the area. Lithologic units at the RP Site and near the River are grouped into characterization zones including the Fill/Shallow Alluvium Zone, Alluvium Zone, and Basalt Zone. A cross section location map is given in Figure 3 that shows the location of two cross sections that extend from the RP property to the River (Figures 4 and 5). An additional cross section extends adjacent to the River from the northwestern property boundary of GASCO south to the southeastern property boundary of Arkema (Figure 6). Characterization zone designations were chosen from soil or rock type, the presence or absence of vertical gradients, and hydraulic properties (e.g., hydraulic conductivity, AMEC, 2003).

Fill/Shallow Alluvium Zone

The Fill/Shallow Alluvium Zone includes the fill lithologic unit and the upper 10 to 15 feet of the sandy silt lithologic unit as shown on the cross sections. The fill lithologic unit consists of variable amounts of sand, silt, clay, organic matter, occasional gravel, and miscellaneous debris that were used to infill Doane Lake. On the Siltronic property, the fill lithologic unit consists of variable amounts of quarry rock and River dredge spoils used to infill topographic depressions. Underlying the fill lithologic unit, the shallow alluvium consists of primarily native sandy silts with occasional discontinuous lenses of sand and clayey silt. The fill lithologic unit is unsaturated in the HA, IA, and northeast of NW Front Avenue, and is saturated in the LA and northwest of the BNSF railroad fill on the Siltronic property. Groundwater elevations at monitoring well clusters screened in the fill lithologic unit and the Alluvium Zone generally indicate a downward vertical gradient between the fill lithologic unit and the Alluvium Zone. The shallow alluvium has been observed to be saturated where it occurs throughout the RP Site.

Groundwater elevation measurements collected from monitoring wells completed in the Fill/Shallow Alluvium Zone indicate that groundwater in the Fill/Shallow Alluvium Zone is influenced by local surface water features, including WDL, North Doane Lake (NDL), and the Northwest Drainage Pond (NDP). Groundwater near the surface water features can discharge to the surface water feature or the surface water feature can recharge the groundwater system, depending on the water elevation in the surface water feature and seasonal changes in groundwater elevation.



Alluvium Zone

The Alluvium Zone includes the lower portion of the sandy silt lithologic unit, the clay lithologic unit, a shelf gravel lithologic unit, and a river gravel lithologic unit, as depicted in Figure 6.

- The lower portion of the sandy silt lithologic unit ranges in thickness from about 50 feet in the HA to 85 feet near monitoring well cluster W-09 (ESCO property) to 20 feet near monitoring well RP-02 cluster (Arkema property). The unit grades from silt at its top to a sand silt and is alluvial in origin;
- The clay lithologic unit is extensive, with an average thickness of about 20 feet. The clay lithologic unit is observed from the River south to the LA near monitoring well clusters W-09 and AL-06 and east underlying the Arkema facility. The unit consists of low permeability interbedded clayey silts and clays;
- The shelf gravel lithologic unit is weathered angular to subangular basalt gravel overlying competent basalt under the RP property, NDL, and the southwestern portion of the Siltronic property. The shelf gravel generally has a silt and clay matrix and is about 1 foot thick, but thickness extends to 10 feet near monitoring well cluster AL-05 in the LA;
- The river gravel lithologic unit is a high permeability rounded to subrounded gravel with cobble-sized clasts. The river gravel unit is thickest at monitoring well RP-07-119 (42.0 feet) and thinner toward the south, with gravel thickness of 16.5 feet at monitoring well W-19-D, 1.5 feet at monitoring well RP-06-87, and absent at monitoring wells MWA-14-I, W-11-B, RP-01-51, and RP-02-65; and
- The Alluvium Zone groundwater elevations indicate the regional groundwater flow direction is southwest to the northeast, from the Tualatin Mountains toward the River. Seasonally the general direction of groundwater flow and groundwater gradient does not change significantly.

Basalt Zone

The Basalt Zone consists of the basalt lithologic unit, which underlies the alluvial deposits, as depicted in the three cross sections (Figures 4 through 6). Basalt at the RP Site and surrounding properties is part of the Columbia River Basalt Group (CRBG). In the west Portland business district, the Columbia River Basalt is at least 700 feet thick and consists of a series of lava flows with discontinuous layers of interflow tuff (USGS 1963). At the RP Site, basalt is observed as highly fractured to massive and highly weathered to fresh. Groundwater elevations at monitoring well clusters screened in the Alluvium Zone and Basalt Zone generally indicate a



downward vertical gradient between the Alluvium Zone and Basalt Zone. Groundwater elevations in the Basalt Zone generally flow from the southwest to the northeast, from the Tualatin Mountains towards the River.

2.4 Groundwater Constituent Distribution

SLLI has evaluated the distribution of constituents in groundwater and has presented results in the Groundwater Characterization Report (GCR; AMEC 2003). However, as part of the development of this Stage 1 SCE WP, groundwater constituent distribution maps based on screening level exceedances have been used to help identify data gaps near the River downgradient from the RP property. The Stage 1 SCE scope of work was developed to help evaluate the potential extent of constituents along the River, as well as to evaluate groundwater concentrations between the River and existing monitoring well locations.

Figures 7, 8, and 9 of this Stage 1 SCE WP provide outlines of groundwater concentrations for selected representative constituents based on criteria provided in Table 1. The criteria used for the constituent outlines were those requested by DEQ in its August 1, 2005 letter regarding the Draft Stage 1 SCE WP (DEQ 2005d). The criteria are not intended to represent appropriate regulatory levels for risk or cleanup, or to trigger any other action.

2.5 Data Gaps

Based on the conceptual hydrologic site model, including constituent distribution in groundwater (Figures 7, 8, and 9) and stratigraphic information as presented on the cross sections (Figures 4, 5, and 6), the following data gaps will be addressed by the SCE at the RP Site:

- Lack of a regional (Arkema, RP, and Siltronic) understanding of groundwater flow direction within the alluvium and basalt zones;
- The need for improved understanding of the basalt surface and gravel thicknesses, and their influence on regional flow directions;
- The need to further evaluate which RP-related constituents, if any, are detectable within the three lithologic units between existing monitoring wells near the riverbank and the River, in the area along the riverbank from the Arkema plant area to the northeastern Siltronic property boundary;
- The need to investigate potential other sources of detected constituents in groundwater near the River that do not appear to be RP-related (e.g., Arkema, Gasco, or Siltronic);



- The need to evaluate whether constituents at or above regulatory levels of concern are present in groundwater at the River, if any, as they relate to potential source control measures;
- The need to evaluate the source of detected constituents;
- The need to evaluate chemical differentiation and distribution of constituent sources; and
- The need to evaluate natural attenuation parameters in groundwater near the River between the Arkema plant area and the northwestern Siltronic property boundary.

It is anticipated that the scope of work for this Stage 1 SCE will at least partially address the above listed data gaps. SCE related to the preferential discharge of RP-related constituents to Outfall 22B Storm Sewer has been previously discussed in the Draft Outfall 22B Storm Sewer Sampling Report (AMEC, 2005d). A scope of work to mitigate infiltration of groundwater containing RP-related constituents into the storm sewer has been provided to DEQ in the Draft Outfall 22B Interim Remedial Action Measure Work Plan dated October 6, 2005.

3.0 TASK 1 - RECONNAISSANCE ACTIVITIES

Task 1 consists of reconnaissance activities that include drilling of investigative borings within the Stage 1 SCE study area using both direct-push and sonic drilling technologies for lithologic logging and the collection of soil and groundwater analytical samples. Analytical results will be used to evaluate whether constituents at or above regulatory levels of concern are present near the River, and to help differentiate, using chemical forensic tools, between constituents derived from the former RP facility and constituents from other sources. The analytical and lithologic results will be used as factors in determining Task 2 monitoring well locations.

The Stage 1 SCE study area has been divided into three individual reconnaissance areas as shown on Figure 2 and includes:

- **Arkema Lots 1 and 2:** The upland area of Lots 1 and 2 within the Arkema site;
- **Beach Area:** The area directly adjacent to the River from just north of the BNSF railroad bridge to the southeastern boundary of Arkema Lot 2; and
- **Siltronic Riverbank:** The upland area directly adjacent to the River from near the BNSF railroad bridge to the northwestern property boundary of Siltronic.

The Task 1 field investigation approach for each of the above listed areas is described below. All drilling activities will be conducted by a driller licensed in the State of



Oregon and will be monitored and recorded by an AMEC field representative working under the supervision of an AMEC State of Oregon Registered Geologist.

3.1 Arkema Lots 1 and 2

Investigative activities to be conducted in Arkema Lots 1 and 2 include advancement of direct-push borings for lithologic logging and soil and groundwater characterization. Boring locations are shown on Figure 2. Lithologic data collected from these boring locations will be used to refine the conceptual hydrogeologic site model. Groundwater analytical data from water-bearing zones of the three lithologic units will be used to evaluate both vertical and lateral distribution of RP-related constituents and to help differentiate those constituents from other sources (e.g., Arkema) within Arkema Lots 1 and 2. Groundwater analytical data will also allow an evaluation of natural attenuation processes for use in future remedy selection, if necessary. Specific sampling activities for Arkema Lots 1 and 2 are described below.

3.1.1 Direct-Push Borings

Direct-push borings within Arkema Lots 1 and 2 will be advanced to refusal depth, estimated at 60 feet below ground surface (ft bgs) based on previous site drilling. At each boring location soil will be sampled continuously for 1) lithologic logging, 2) field screening by a photoionization detector (PID) for the presence of volatile organic compounds (VOCs), and 3) visual inspection. Soil from the following five depths at a minimum will be retained for hydrogeologic parameter and/or chemical constituent analysis as summarized on Table 2 and as outlined in the FSP: 0 to 0.5 ft bgs, 5 to 5.5 ft bgs, directly above the water table within the capillary fringe, 30 to 30.5 ft bgs, and at drill refusal depth, as outlined in the Stage 1 SCE FSP. Ten soil samples from Arkema Lots 1 and 2 and the Beach Area will be analyzed for chemical constituents as summarized on Table 2. Additional soil samples will be submitted for chemical constituent analysis if visual and/or PID evidence during sample collection indicates potential soil impact. Soil samples will be collected and analyzed in accordance with procedures outlined in the Stage 1 SCE FSP.

Three reconnaissance groundwater samples will be collected per boring for laboratory analysis as summarized on Table 2. Water samples will be collected from 1) the first water-bearing zone, 2) directly above the clay layer (estimated at 40 ft bgs), and 3) drill refusal depth. Groundwater samples will be collected in accordance with procedures outlined in the Stage 1 SCE FSP.



3.2 Beach Area Investigation

Investigative activities to be conducted in the Beach Area include advancement of direct-push and sonic borings for lithologic logging and soil and groundwater characterization. Boring locations are shown on Figure 2. Lithologic data collected from these boring locations will be used to refine the conceptual hydrogeologic site model. Groundwater analytical results from the Beach Area investigation will be used to evaluate whether constituents at or above regulatory levels of concern are present near the River at various elevations within water-bearing zones of the three lithologic units. Specific sampling activities for the Beach Area are described below.

3.2.1 Direct-Push Borings

Direct-push borings within the Beach Area will be advanced to refusal depth, estimated at 50 ft bgs. At each boring location soil will be sampled continuously for 1) lithologic logging, 2) field screening by PID, and 3) visual inspection. Soil from the following five depths at a minimum will be retained for hydrogeologic parameter and/or chemical constituent analysis as summarized on Table 2 and as outlined in the Stage 1 SCE FSP: 0 to 0.5 ft bgs, 5 to 5.5 ft bgs, directly above the water table within the capillary fringe, 20 to 20.5 ft bgs, and at drill refusal depth. Because the water table is anticipated to be much shallower within the Beach Area, the 5 to 5.5 ft bgs sample may be analogous to the capillary fringe sample; therefore, only four depth intervals will likely be collected in this area. Ten soil samples from Arkema Lots 1 and 2 and the Beach Area will be analyzed for chemical constituents as summarized on Table 2. Additional soil samples will be submitted for chemical constituent analysis if visual and/or PID evidence during sample collection indicates potential soil impact. Soil samples will be collected and analyzed in accordance with procedures outlined in the Stage 1 SCE FSP.

Three reconnaissance groundwater samples will be collected per boring for laboratory analysis as summarized on Table 2. Water samples will be collected from 1) the first water-bearing zone, 2) directly above the clay layer (estimated at 30 ft bgs), if present, and 3) drill refusal depth. Groundwater samples will be collected in accordance with procedures outlined in the Stage 1 SCE FSP.

3.2.2 Sonic Borings

Borings drilled using sonic technologies, as shown on Figure 2, will be advanced to confirm lithologic logging from the direct-push borings, to document the basalt surface elevation and surface condition (e.g., fracturing and weathering) and gravel thickness (if observed), and to evaluate groundwater quality in the basalt zone. Borings will be



advanced approximately 10 ft into the weathered basalt. Soil sampling will be conducted continuously for lithologic logging and documentation of visually impacted soils. No soil samples for analytical analysis are planned from the Beach Area sonic borings. One reconnaissance groundwater sample will be collected from the basalt zone at these boring locations for laboratory analysis of chemical constituents as summarized in Table 1. An additional groundwater sample will be collected if the gravel unit is encountered during drilling and if a sample was not obtained from this zone from a nearby direct-push boring. Sample collection procedures will follow those as outlined in the Stage 1 SCE FSP.

3.3 Siltronic Riverbank Investigation

Investigative activities to be conducted on the Siltronic Riverbank include advancement of sonic borings for lithologic logging and soil and groundwater characterization. Boring locations are shown on Figure 2. Lithologic data collected from these boring locations will be used to refine the conceptual hydrogeologic site model. Soil samples will be analyzed for selected parameters to help evaluate partitioning coefficients at the Siltronic Riverbank. Groundwater analytical results will be used to evaluate whether constituents at or above regulatory levels of concern are present near the River at various elevations within water-bearing zones of the three lithologic units. Specific sampling activities for the Siltronic Riverbank are described below.

3.3.1 Sonic Borings

Borings drilled using sonic technologies, as shown on Figure 2, will be advanced for the purpose of lithologic logging, to document the basalt surface elevation and surface condition (e.g., fracturing and weathering) and gravel thickness (if observed), and to evaluate groundwater quality.

Sonic borings within the Siltronic Riverbank will be advanced approximately 10 ft into the weathered basalt, estimated at 110 ft bgs near the BNSF railroad bridge to 230 ft bgs near the Siltronic plant area. At each boring location soil will be sampled continuously for lithologic logging, field screening by PID and visual inspection. No soil samples for chemical analysis are planned from these boring locations. However, soil samples for hydrogeologic parameters, including total organic carbon (TOC), will be collected and analyzed as outlined in the Stage 1 SCE FSP.

Up to six reconnaissance groundwater samples will be collected per boring for laboratory analysis as summarized on Table 2. Water samples will be collected from 1) the first water-bearing zone, 2) approximately 100 ft bgs, 3) every 30 ft thereafter



until drill refusal, 4) in the gravel zone, if present, and 5) in the basalt zone. Sample collection procedures will follow those outlined in the Stage 1 SCE FSP.

4.0 TASK 2 - MONITORING WELL INSTALLATION

The number of monitoring wells to be installed during Task 2, the completion depth of each well, and well locations will be determined based on evaluation of the combined lithologic and analytical data available from the Task 1 reconnaissance field investigation activities. Currently, it is anticipated that three well clusters will be installed in the Beach Area and one cluster will be installed on the Siltronic Riverbank, as shown on Figure 2. In addition, up to three monitoring well clusters will be installed at Arkema Lots 1 and 2 (Figure 2). Monitoring well clusters will be screened within each lithologic unit (i.e., Fill/Shallow Zone, Alluvium Zone, and the Basalt Zone). If a gravel unit at the base of the Alluvium Zone is encountered, an additional monitoring well will be installed and completed within the gravel unit.

Boreholes for monitoring wells will be drilled using sonic drilling technologies by a well driller licensed in the State of Oregon. Monitoring wells will be constructed with schedule 40 PVC casing and screening as described in Section 2.2 of the Stage 1 SCE FSP (see Appendix A). Soil samples will be collected continuously for lithologic logging at each monitoring well location. The new monitoring wells will generally be constructed with above-ground protective casing (unless prohibited by site traffic) in accordance with Oregon Administrative Rule (OAR) 690-240-0110 and will be surveyed by a licensed surveyor following completion.

5.0 TASK 3 - GROUNDWATER MONITORING

Groundwater samples will be collected at each of the new monitoring well clusters installed during the Task 2 monitoring well installation activities in addition to selected existing wells. The groundwater monitoring has been divided into two separate events based on the overall project schedule discussed in further detail in Section 8.0. The first groundwater monitoring event will be conducted following the installation of the monitoring well clusters on Arkema Lots 1 and 2 and will include sampling of these wells in addition to RP monitoring well clusters RP-01, RP-02, W-19 and Arkema monitoring wells MWA-3, MWA-5, MWA-9i, MWA-13d, MWA-14i, MWA-17si, and MWA-21b. The second groundwater monitoring event will occur following the installation of monitoring wells at the Beach Area and Siltronic Riverbank. This event will include sampling of all newly installed monitoring wells, the wells sampled during the first event, RP monitoring well clusters MW-05 and RP-07, and Siltronic monitoring well pairs WS-11 and WS-12. Groundwater monitoring locations are shown on



Figure 10. During the second groundwater monitoring event, a round of water levels will be collected from all RP Site wells.

Groundwater samples will be collected using the same techniques as those described in Section 2.3.2 of the Stage 1 SCE FSP. Groundwater samples will be analyzed for the same list of constituents used for the Task 1 reconnaissance investigation described above in addition to natural attenuation parameters. The frequency of additional sampling events at each monitoring well, if needed, will be determined by SLLI and described in the SCE technical memorandum (See Section 7.0).

6.0 TASK 4 - TRANSDUCER STUDY

Following the completion of the Task 3 groundwater monitoring events, a transducer study will be conducted within selected newly installed monitoring well clusters and selected existing monitoring well clusters to evaluate hydraulic gradients and tidal influence on the three lithologic units near the River. Planned pressure transducer installation locations include each monitoring well in well clusters W-19 and RP-02, and in each well of two of the newly installed Beach Area and/or Arkema Lots 1 and 2 monitoring well clusters. Final transducer study locations will be determined following the evaluation of hydrogeologic data collected during Tasks 1 through 3 of this Stage 1 SCE.

7.0 REPORTING

Following the completion of the Stage 1 SCE field activities, analytical results will be validated, evaluated, and submitted to DEQ in a technical memorandum. The Stage 1 SCE technical memorandum will include a description of field activities and observations, a summary of the analytical results, summary and conclusions of the observations and results of the Stage 1 SCE, revisions to the hydrogeologic conceptual site model, and any proposed future investigations. Following subsequent investigations, if needed, a SCE report will be submitted to DEQ that will include an evaluation of data from the Stage 1 SCE, the additional investigations, and LWG in-water investigation as appropriate.

8.0 SCHEDULE

The Stage 1 SCE schedule, illustrated on Figure 11, includes mobilization and completion of field programs, laboratory analysis of samples, data validation, and evaluation and reporting of the data for the Stage 1 SCE.



Tasks 1 through 3 for Arkema Lots 1 and 2 have been expedited to allow documentation of changes in groundwater chemistry beneath Lots 1 and 2 in response to implementation of Interim Remedial Measures (IRM) on Arkema Lots 3 and 4 during July/August 2005. A preliminary analysis of chemical distribution and hydrology throughout the area indicate that these IRMs could impact groundwater quality beneath Arkema Lots 1 and 2; therefore, these investigative activities began August 9, 2005 as indicated on Figure 11.

The remaining investigative activities are subject to access and/or permit approval. SLLI will keep DEQ informed of schedule status as access and permits are obtained. The schedule in Figure 11 shows the Beach Area and Siltronic Riverbank work beginning in mid-October. Because of permitting and access delays related to the Beach Area work, it is likely that the Siltronic Riverbank scope of work will be conducted in late October and the Beach Area at a later date.



REFERENCES

AMEC, 2001. *Revised Quality Assurance Project Plan, RPAC - Portland Site*, prepared for Aventis CropScience, prepared by AMEC Earth & Environmental, submitted to Oregon Department of Environmental Quality, June 13, 2001.

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AMEC 2005a. Stage 1 Source Control Evaluation, RP - Portland Site, prepared for SLLI, prepared by AMEC Earth & Environmental, Inc. submitted to Oregon Department of Environmental Quality, May 20, 2005.

AMEC 2005b. Stage 1 Source Control Evaluation - Modification to Scope, Siltronic Property, RP - Portland Site, prepared for SLLI, prepared by AMEC Earth & Environmental, Inc. submitted to Oregon Department of Environmental Quality, September 22, 2005.

AMEC, 2005c. *Site-Specific Health and Safety Plan*, prepared by AMEC Earth & Environmental, Inc., submitted to Oregon Department of Environmental Quality, June 24, 2005.

AMEC 2005d. Draft Outfall 22B Storm Sewer Sampling Report, RP - Portland Site, prepared for SLLI, prepared by AMEC Earth & Environmental, Inc. submitted to Oregon Department of Environmental Quality, March 24, 2005.

DEQ 2005a. Letter from Thomas E. Roick, *Source Control Evaluation, Rhone Poulenc Portland Site*. February 22, 2005.

DEQ 2005b. Letter from Thomas E. Roick, *Stage 1 Source Control Evaluation, Rhone Poulenc Portland Site*. June 9, 2005.

DEQ 2005c. Letter from Thomas E. Roick, *Stage 1 Source Control Evaluation, Rhone Poulenc Portland Site*. July 20, 2005.

DEQ 2005d. Letter from Thomas E. Roick, *Stage 1 Source Control Evaluation, Rhone Poulenc Portland Site*. August 1, 2005.



DEQ 2005e. Email from Mavis D Kent, Stage 1 Source Control Evaluation -
Modification to Scope, Siltronic Property. September 22, 2005.



LIMITATIONS

This report was prepared exclusively for SLLI by AMEC Earth & Environmental, Inc. (AMEC). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This Final Stage 1 Source Control Evaluation Work Plan is intended to be used by SLLI for the RP - Portland Site, 6200 N.W. St. Helens Road, Portland, Oregon only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

TABLES

TABLE 1
Groundwater Screening Values
Final Stage 1 Source Control Evaluation
RP - Portland Site

Chemical Class	Representative Constituent	Screening Value	Screening Value Basis and Comments
VOCs	Benzene	5.1 µg/L	OAR 340-041-0033 Table 33A Water Quality Criteria divided by 10 used as screening value; some outliers may have been eliminated from contour.
VOCs	1,2-Dichlorobenzene	130 µg/L	OAR 340-041-0033 Table 33A Water Quality Criteria divided by 10 used as screening value; some outliers may have been eliminated from contour.
Phenols	2,4-Dichlorophenol	29 µg/L	OAR 340-041-0033 Table 33A Water Quality Criteria divided by 10 used as screening value; some outliers may have been eliminated from contour.
Pesticides	Dieldrin	MDL	Screening values are less than the analytical detection limit, so MDL was used to draw groundwater plume; some outliers may have been eliminated from contour.
Dioxins/Furans	2,3,7,8-TCDD	MDL	Screening values are less than the analytical detection limit, so MDL was used to draw groundwater plume; some outliers may have been eliminated from contour.
Herbicides	2,4-D	360 µg/L	EPA Region IX tap water PRG used to contour; no Table 33A Water Quality Criteria available; some outliers may have been eliminated from contour.

Notes:

EPA United States Environmental Protection Agency
MDL method detection limit
µg/L micrograms per liter
OAR Oregon Administrative Rule
PRG Preliminary Remediation Goals
VOCs volatile organic compounds

Screening value criteria were those requested by Oregon Department of Environmental Quality in its letter dated August 1, 2005.
The criteria are not intended to represent appropriate regulatory levels for risk or cleanup, or to trigger any other action.

TABLE 2
Summary of Investigation Locations and Sampling Activities
Final Stage 1 Source Control Evaluation
RP - Portland Site

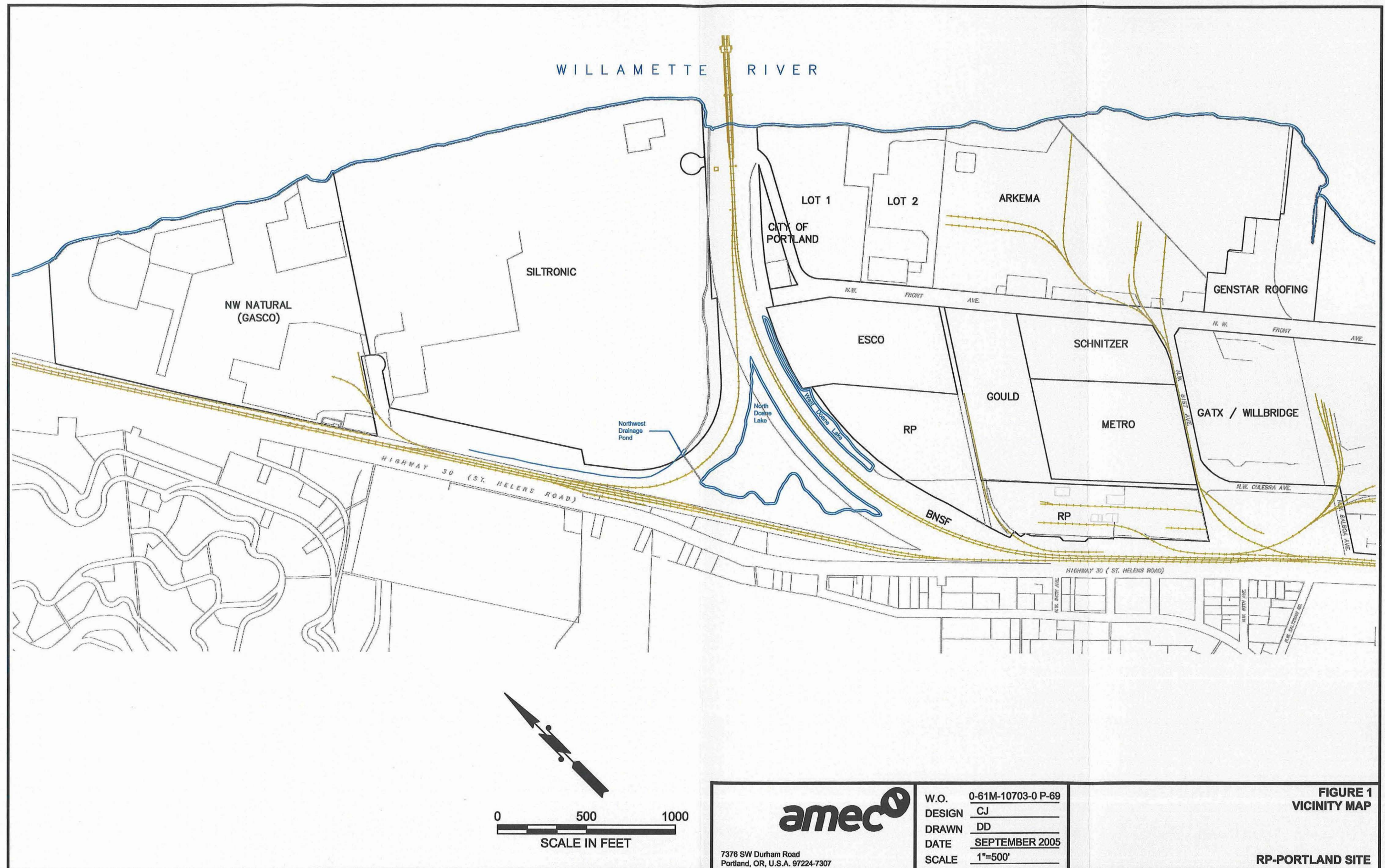
Task	Study Area	Investigation Method	Sampling Media	Analytical Requirements													
				Proposed Analytical Sampling Depth ^(A)	VOCs by EPA Method 8260B	SVOCs by EPA Method 8270C	Herbicides by EPA Method 8151A	Pesticides by EPA Method 8081A	Dioxins/ Furans by EPA Method 1613	PCBs by EPA Method 8082A	TPH Diesel Range by NWTPH-Dx	Metals by EPA Methods 6010A/6020/7470A ^(B)	Compound Specific Isotope Analysis (GC/C/IRMS)	Chloride by EPA Method 300.0	Ammonia by EPA Method 350.3	Hydrogeologic Parameters ^(E)	Natural Attenuation Parameters ^(C)
Task 1 - Reconnaissance Activities	Arkema Lots 1 and 2	Direct-Push	Soil Groundwater	0-0.5, 5-5.5, CF, 20-20.5 ft bgs, Refusal depth ^(D, F) First WBZ, 40 ft bgs, Refusal depth	A X	A X	A X	A X	A X	A A	A X	A X	A X	X X	X X	X	
	Beach Area	Direct-Push	Soil Groundwater	0-0.5, 5-5.5, CF, 30-30.5 ft bgs, Refusal depth ^(D, F) First WBZ, 30 ft bgs, Refusal depth	A X	A X	A X	A X	A X	A A	A X	A X	A X	X X	X X	X	
		Sonic	Soil Groundwater	No Samples Planned Gravel WBZ, Basalt WBZ	X X	X X	X X	X X	X X		X X	X X	X X	X X	X X		
	Siltronic Riverbank	Sonic	Soil Groundwater Groundwater	No Samples Planned ^(D) First WBZ, 100 ft bgs, Gravel WBZ, Basalt WBZ 130, 160, 190 ft bgs	X X	X X	X X	X X	X X		X X	X X	X X				
Task 2 - Monitoring Well Installation	Various	Sonic	Soil Groundwater	No Samples Planned No Samples Planned													
Task 3 - Groundwater Monitoring	Various	NA	Groundwater	Various	X	X	X	X	X		X	X	X	X	X		X
Task 4 - Transducer Study	Various	NA	NA	NA													

Notes:
(A) Sampling depths may be adjusted based on field observations.
(B) Total and dissolved metals analysis for groundwater samples. Metals include: aluminum, calcium, iron, magnesium, potassium, sodium, arsenic, cadmium, chromium, copper, lead, manganese, nickel, vanadium, zinc, and mercury.
(C) Natural attenuation parameters include: ferrous iron, microbial enumerations, nutrients, total organic carbon, chemical oxygen demand, sulfate, sulfide, total alkalinity, major cations, and methane.
(D) Discrete soil samples will be analyzed for hydrogeologic parameters. Sampling depths will include planned groundwater sample intervals and depths based on field observations.
(E) Hydrogeologic parameters include: total organic carbon, mechanical sieve and 200 wash.
(F) Ten soil samples will be analyzed for VOCs, SVOCs, herbicides, pesticides, dioxins/furans, PCBs, TPH diesel range, metals and compound specific isotope analysis. Additional soil samples will be analyzed for chemical constituent analysis if visual and/or photoionization detector evidence during sample collection indicates potential soil impact.

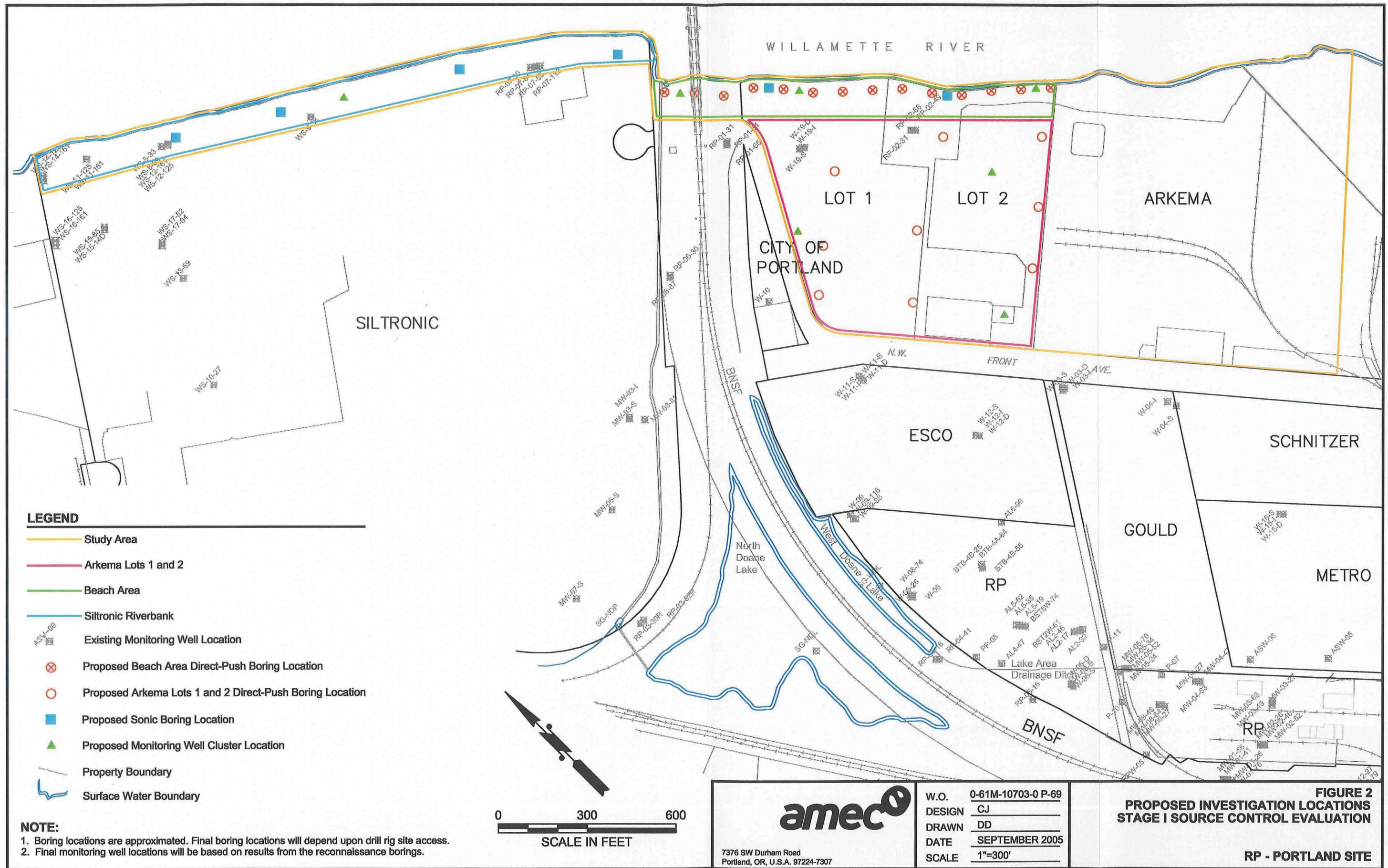
A
bgs
CF
EPA
ft
GC/C/IRMS
NA
PCBs
SVOCs
TPH
VOCs
WBZ

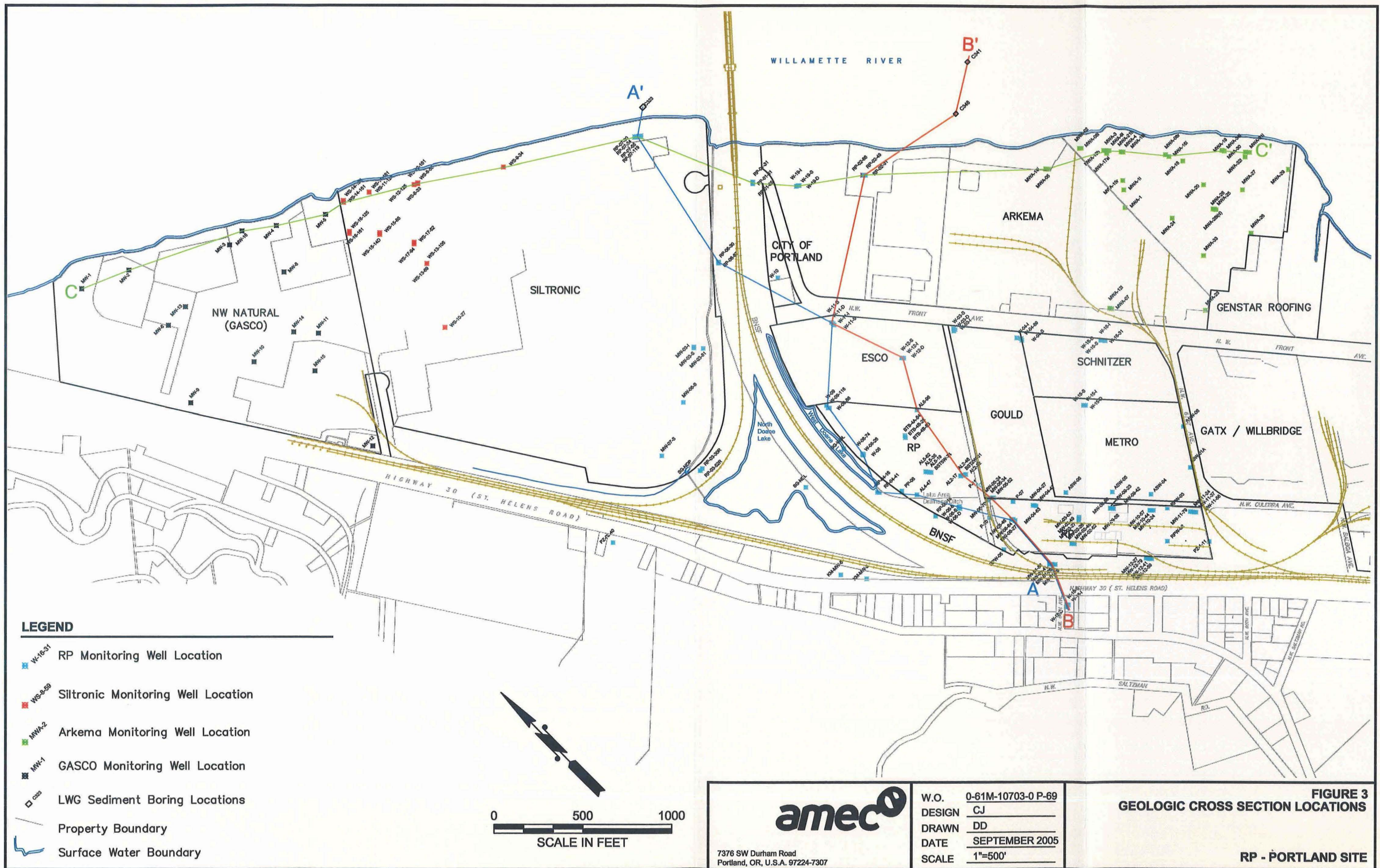
Archive, analyze only if evidence of contamination
below ground surface
capillary fringe
Environmental Protection Agency
feet
Gas Chromatography/Combustion Interface/Isotope Ratio Mass Spectrometer
Not applicable
Polychlorinated biphenyls
Semivolatile organic compounds
Total Petroleum Hydrocarbons
Volatile organic compounds
Water-bearing zone

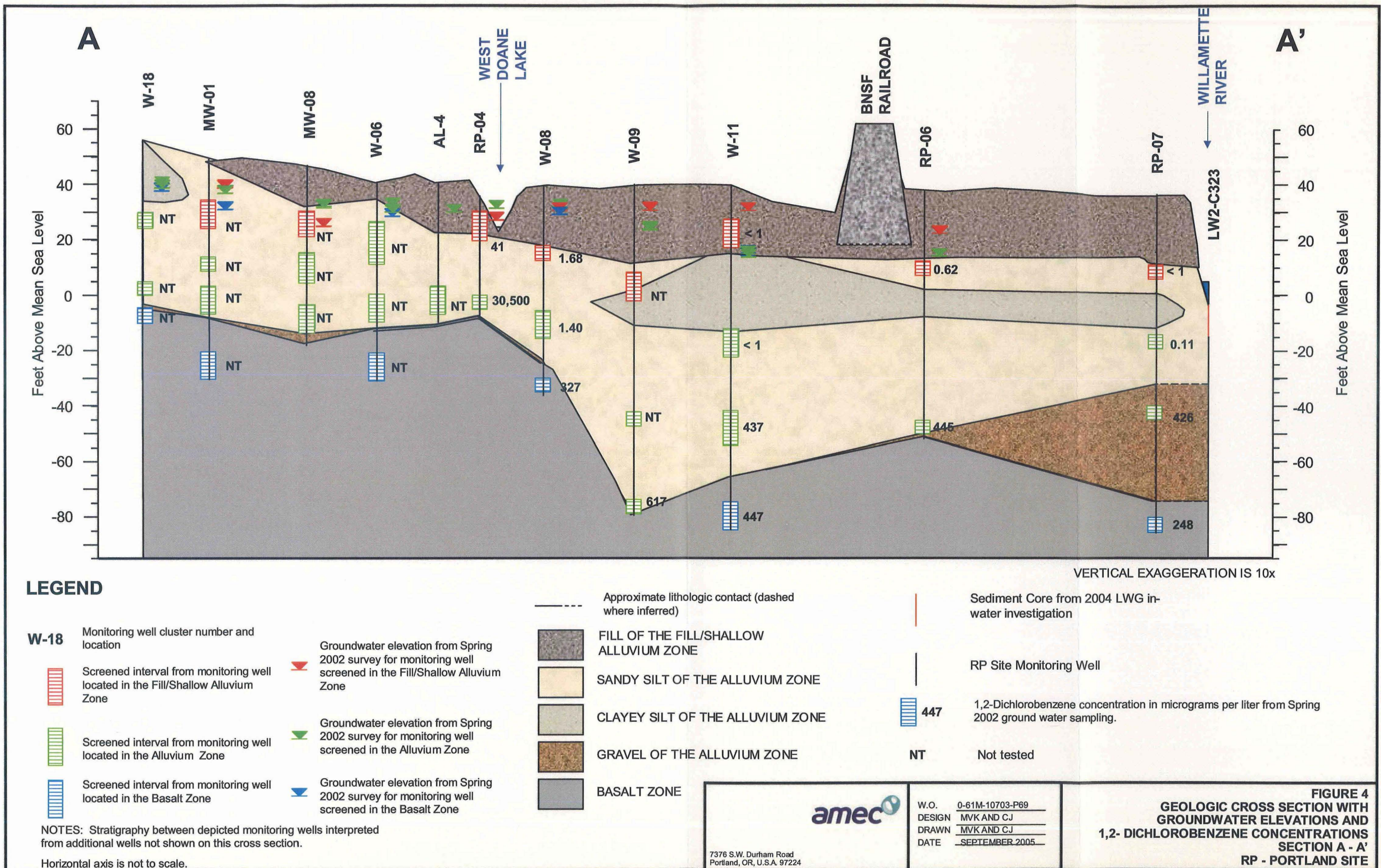
FIGURES

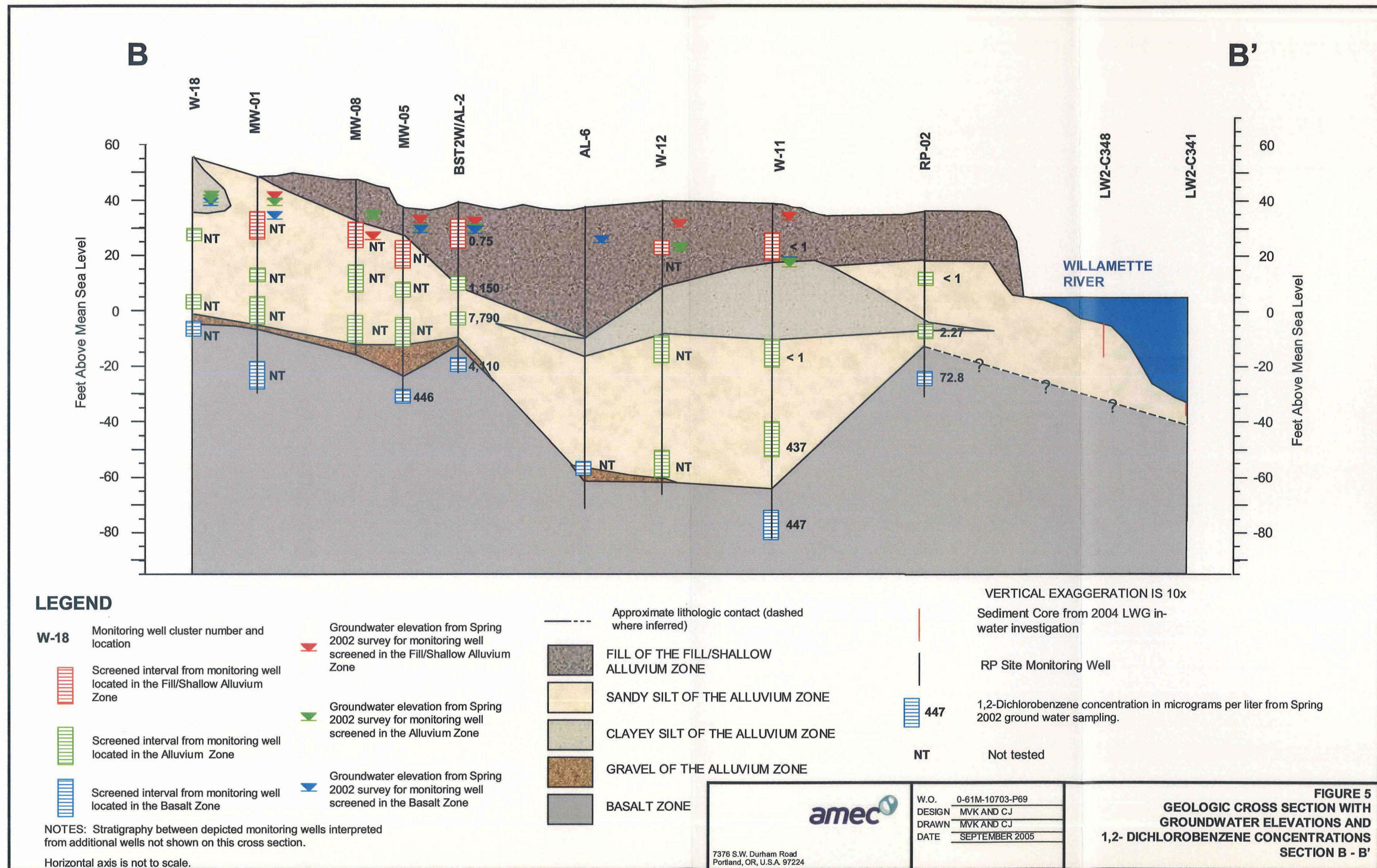


AMEC DRAWING NO. K: \ 10000 \ 10700 \ 10703 \ PHASE 69 Source Control Evaluation \ STAGE 1 SCE WP \ FINAL SCE WP \ DWG \ FIGURE 1.dwg

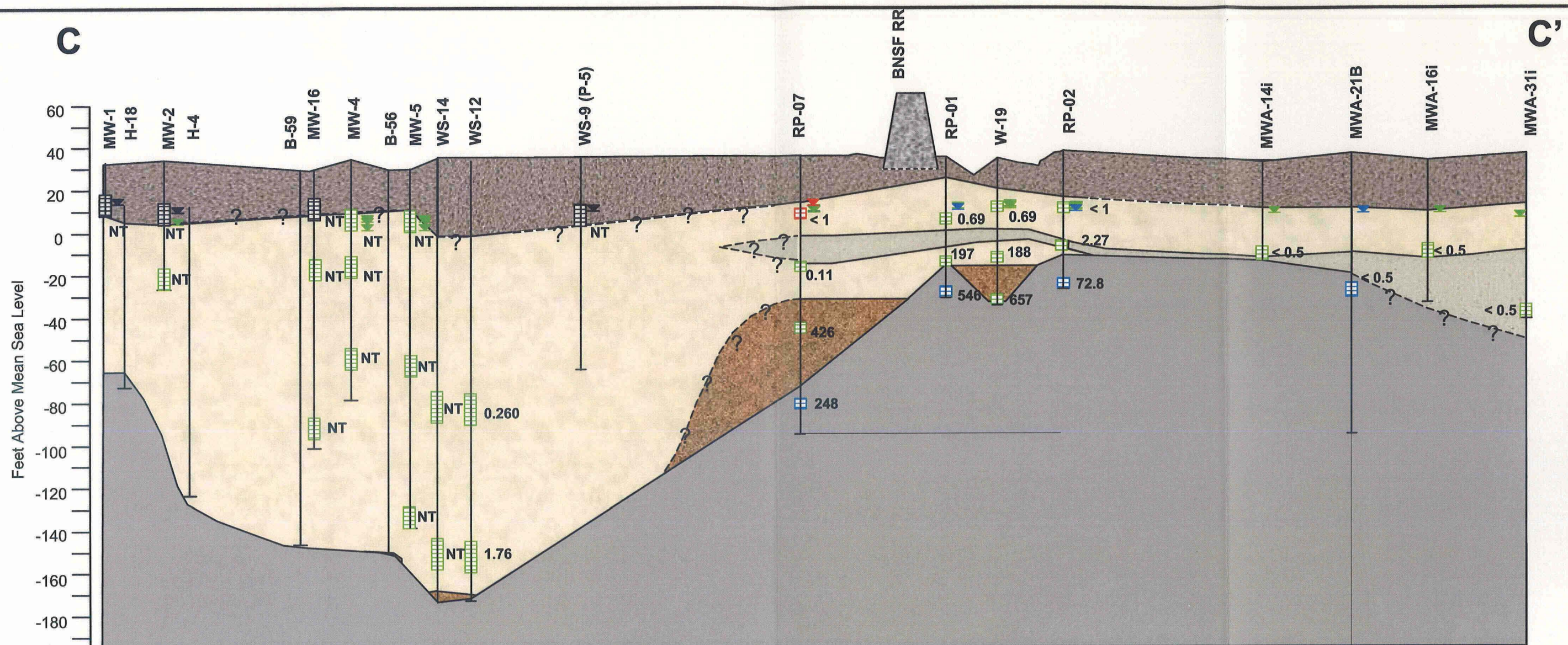








AMEC DRAWING NO. k:\10000\10700\10703\Phase 69 SCE\Stage 1 SCE WP\Final Stage 1 SCE WP\DWG\Figure 5_cross section B to B'.ppt



LEGEND

- Screened interval from monitoring well located in the Fill/Shallow Alluvium Zone
- Screened interval from monitoring well located in the Alluvium Zone
- Screened interval from monitoring well located in the Basalt Zone

- Groundwater elevation from Spring 2002 survey for monitoring well screened in the Fill/Shallow Alluvium Zone
- Groundwater elevation from Spring 2002 survey for monitoring well screened in the Alluvium Zone
- Groundwater elevation from Spring 2002 survey for monitoring well screened in the Basalt Zone

- FILL OF THE FILL/SALLOW ALLUVIUM ZONE
- SANDY SILT OF THE ALLUVIUM ZONE
- CLAYEY SILT OF THE ALLUVIUM ZONE
- GRAVEL OF THE ALLUVIUM ZONE
- BASALT ZONE

- W-19** Monitoring well cluster number and location
- Approximate lithologic contact (dashed where inferred)
- 1,2-Dichlorobenzene concentration in micrograms per liter from Spring 2002 ground water sampling.
- NT** Not tested

NOTES:

Stratigraphy between depicted monitoring wells interpreted from additional wells not shown on this cross section.
 Elevations of WS-14 and P-5 assumed to be 35.0 feet above mean sea level.
 Groundwater data for MWA-14i, -21B, -16i, and -31i were taken from Table 4-26 in ATOFINA Upland Remedial Investigation Report, ERM (2004).
 Monitoring wells WELLS WS-12, WS-14, and MW-16 installed after Spring 2002 groundwater elevation survey.
 Groundwater data for well WS-12 from October 2003 were taken from Table 3-7 in Siltronic Corp. Remedial Investigation Proposal, Maul Foster Alongi (2004).
 Horizontal axis not to scale.

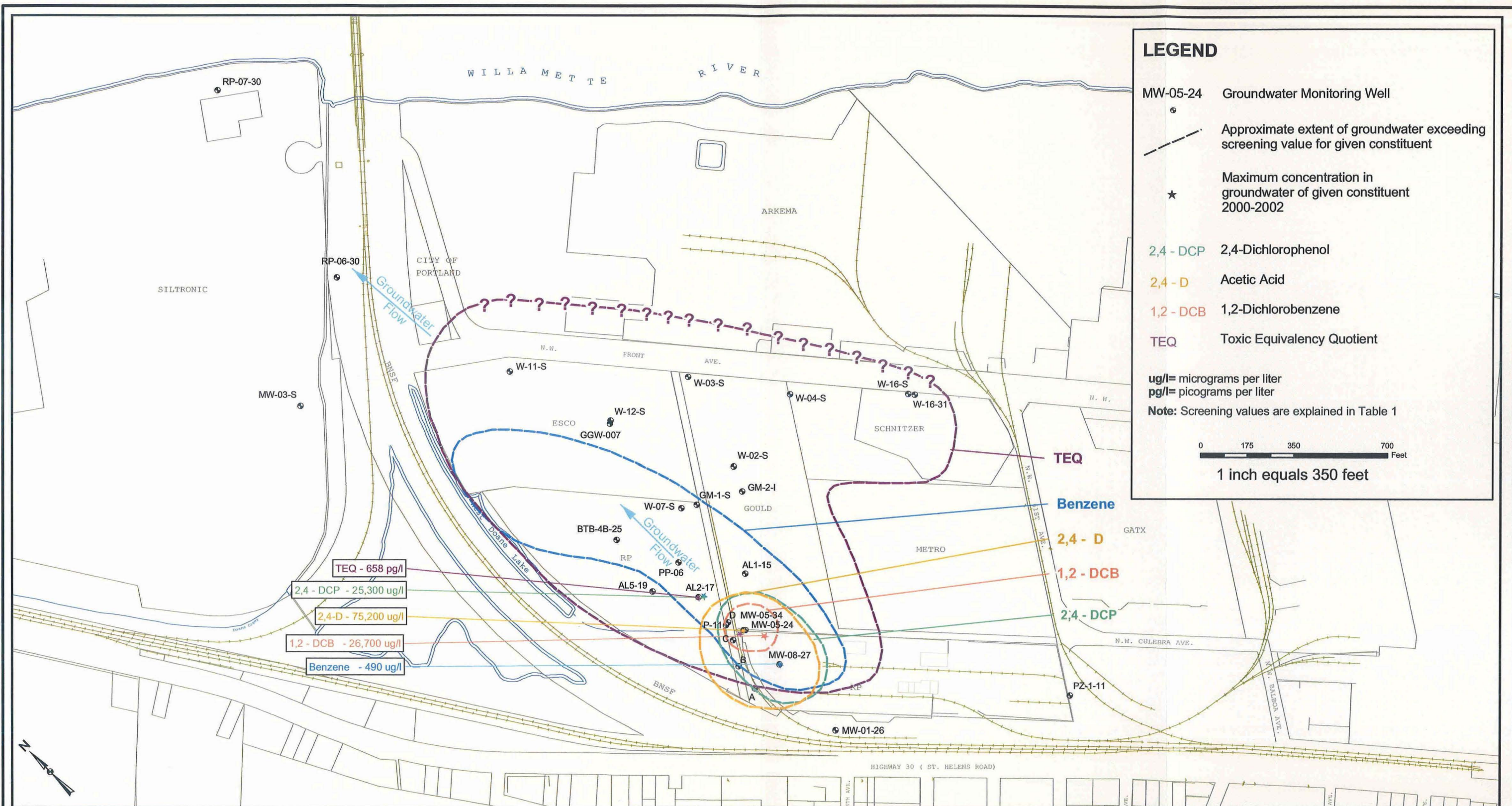
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W.O. 0-61M-10703-P69
 DESIGN MVK AND CJ
 DRAWN MVK AND CJ
 DATE SEPTEMBER 2005

FIGURE 6
GEOLOGIC CROSS SECTION WITH
GROUNDWATER ELEVATIONS AND
1,2- DICHLOROBENZENE CONCENTRATIONS
SECTION C-C'
RP - PORTLAND SITE

AMEC DRAWING NO. K:\10000\10700\10703\Phase 69 SCE\Stage 1 SCE WP\Final Stage 1 SCE WP\DWG\Figure 6_cross section C to C'.ppt



Note: Groundwater concentrations from 2000-2002 as presented in the
FINAL GROUNDWATER CHARACTERIZATION REPORT
RP - PORTLAND SITE, prepared by AMEC, dated March 28, 2003

Screening value criteria are those requested by Oregon Department
of Environmental Quality in letter dated August 1, 2005. The criteria
are not intended to represent appropriate regulatory levels for risk or
cleanup or to trigger any other action.

Basemap: AMEC X-MAINBASE W/ Schnitzer Fence.dwg

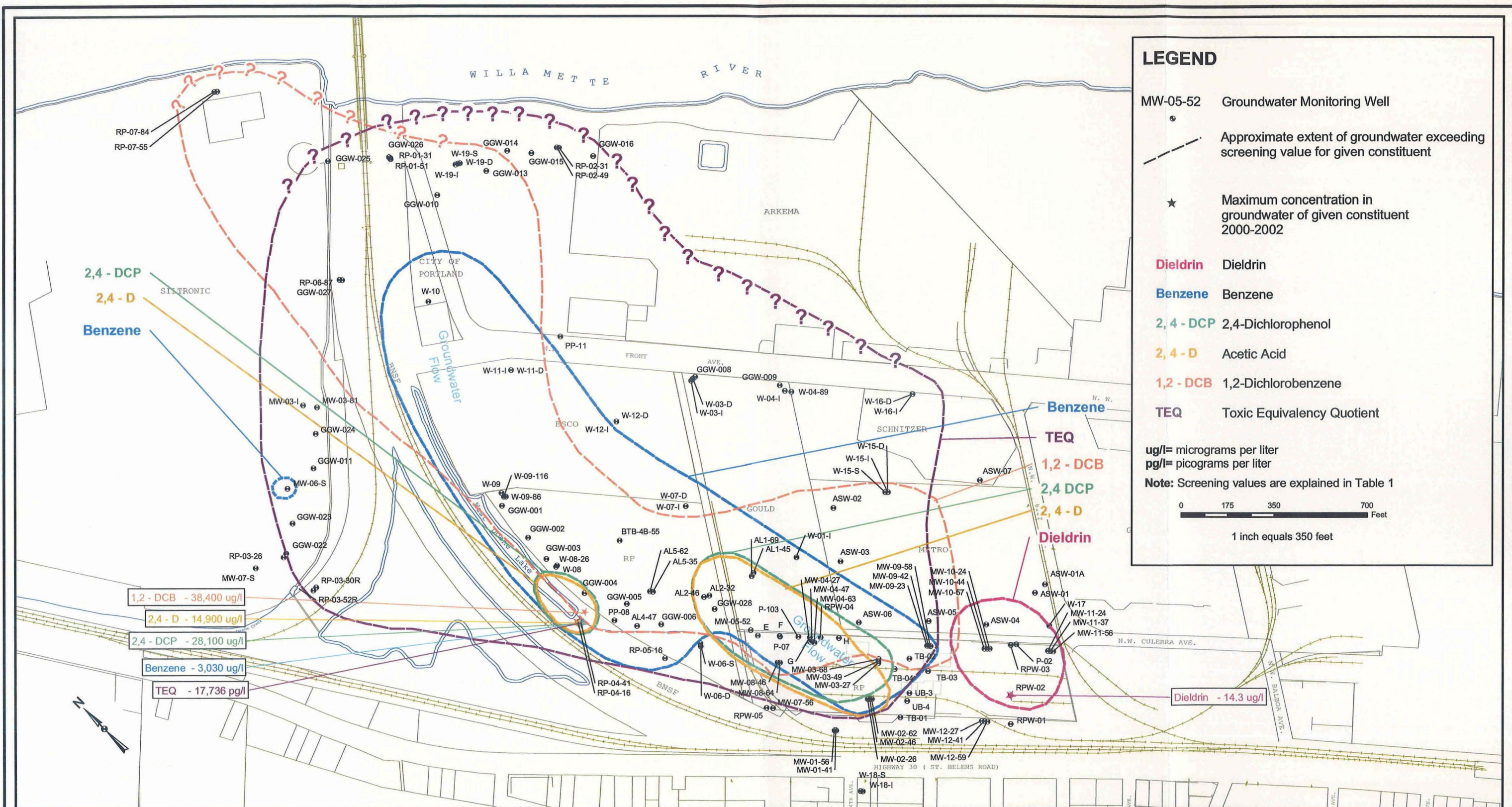


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FIGURE 7
GROUNDWATER EXCEEDING SCREENING VALUES
SELECTED CONSTITUENTS
FILL / SHALLOW ALLUVIUM ZONE
RP - PORTLAND SITE

K:\10000\10700\10703\Phase 69 SCE\Stage 1 SCE WP\final stage 1 SCE WP\dwg\Figure 7 Fill-Shallow Alluvium Zone --rev sept2005.mxd



Note: Groundwater concentrations from 2000-2002 as presented in the FINAL GROUNDWATER CHARACTERIZATION REPORT
RP - PORTLAND SITE, prepared by AMEC, dated March 28, 2003

Screening value criteria are those requested by Oregon Department of Environmental Quality in letter dated August 1, 2005. The criteria are not intended to represent appropriate regulatory levels for risk or cleanup or to trigger any other action.

Basemap: AMEC X-MAINBASE with Schnitzer Fence.dwg

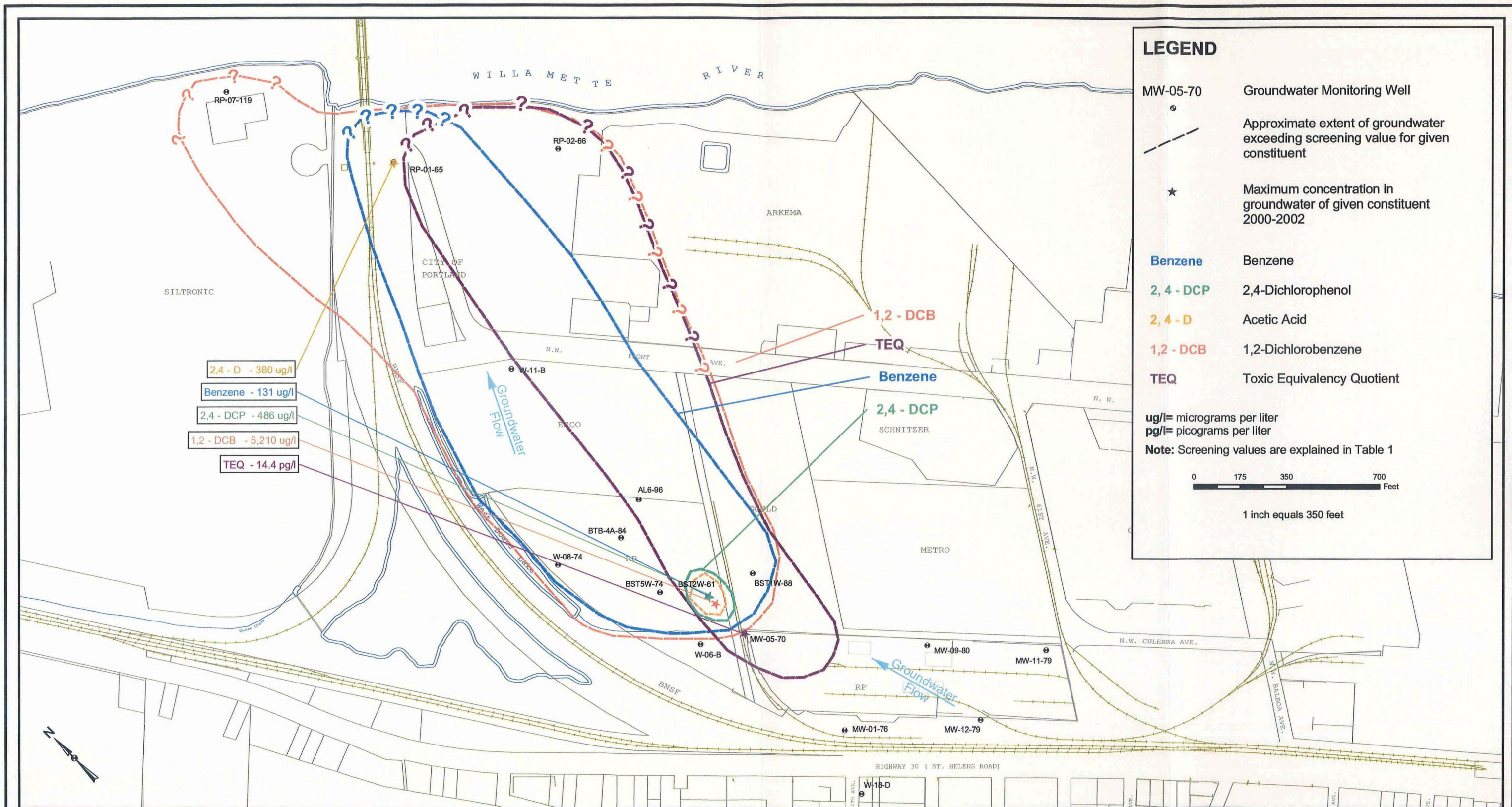
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DATE SEPT 2005

FIGURE 8
GROUNDWATER EXCEEDING SCREENING VALUES
SELECTED CONSTITUENTS
ALLUVIUM ZONE
RP - PORTLAND SITE

K:\10000\10700\10703\Phase 69 SCE\Stage 1 SCE WP\Final Stage 1 SCE WP\DWG\Figure 8 Alluvium Zone --rev sep05.mxd



Note: Groundwater concentrations from 2000-2002 as presented in the
FINAL GROUNDWATER CHARACTERIZATION REPORT
RP - PORTLAND SITE, prepared by AMEC, dated March 28, 2003

Screening value criteria are those requested by Oregon Department
of Environmental Quality in letter dated August 1, 2005. The criteria
are not intended to represent appropriate regulatory levels for risk or
cleanup or to trigger any other action.

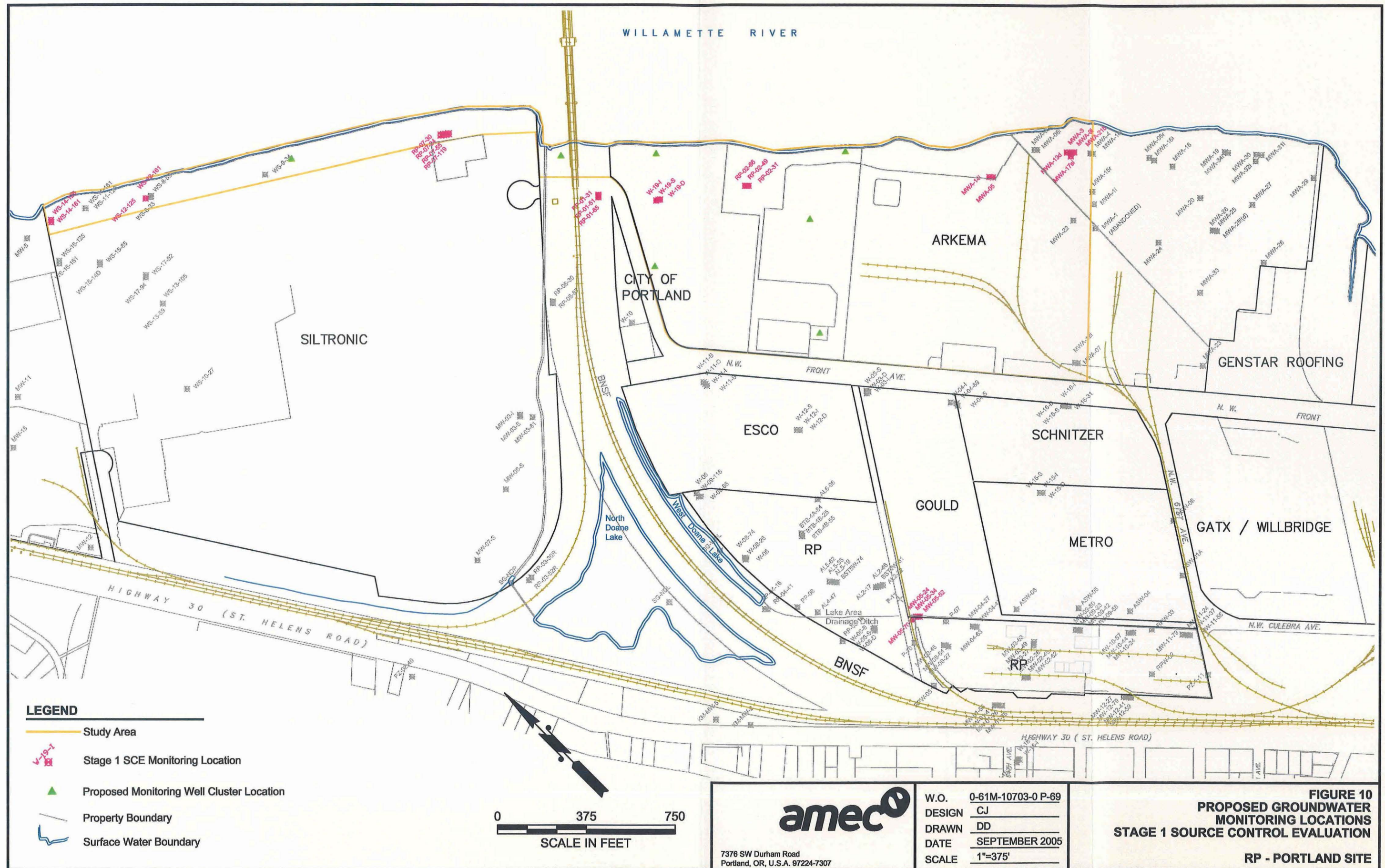
Basemap: AMEC X-MAINBASE with Schnitzer Fencing.dwg



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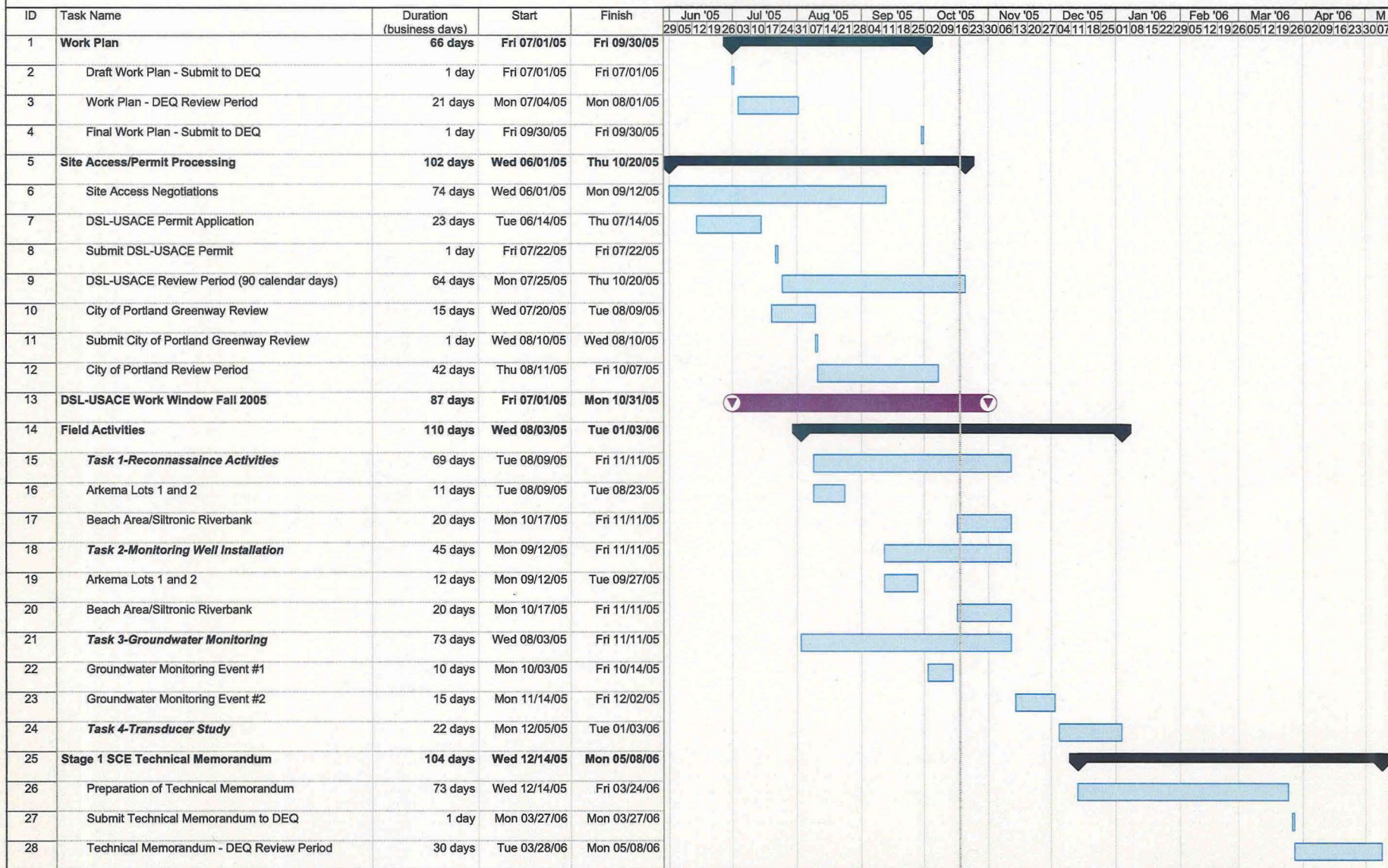
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DATE SEPT 2005

FIGURE 9
GROUNDWATER EXCEEDING SCREENING VALUES
SELECTED CONSTITUENTS
BASALT ZONE
RP - PORTLAND SITE



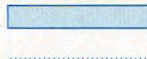
AMEC DRAWING NO. K: 10000 \ 10700 \ 10703 \ Phase 69 SOURCE CONTROL EVALUATION \ STAGE 1 SCE WP \ FINAL SCE WP \ DWG \ FIGURE 10. DWG

FIGURE 11
Project Schedule
Stage 1 Source Control Evaluation
RP - Portland Site



Project: Figure 8_ Stage 1 SCE Schedule
Date: Mon 09/26/05

Task
Split



Progress
Milestone



Summary

Time Constraints for Field Activities



APPENDIX A

Stage 1 Source Control Evaluation Field Sampling Plan



**STAGE 1 SOURCE CONTROL EVALUATION
FIELD SAMPLING PLAN
RP - PORTLAND SITE**

October 18, 2005

Submitted to:

Oregon Department of Environmental Quality
2020 S.W. 4TH Avenue
Portland, Oregon 97201

Submitted for:

SLLI
One Copely Parkway, Suite 309
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0-61M-107030/Phase 69



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Appendix A-1 Standard Operating Procedures

- SOP - 1: Methodology for Water Level Determination
- SOP - 2: Methodology for Groundwater Sampling
- SOP - 3: Decontamination Procedure
- SOP - 4: Field Measurement of Groundwater Parameters
- SOP - 12: Methodology for Soil Sampling
- SOP - 13: Waste Management Procedures
- SOP - 14: Methodology for Monitoring Well Development
- SOP - 22: Data logger and Transducer Installation Procedures
- SOP - 23: Groundwater Sampling, Direct-Push Method
- SOP - 24: Discrete Groundwater Sampling During Drilling

Appendix A-2 Forms

- Well Construction/Boring Log Form
- Well Development Log
- Water Level and NAPL Thickness Measurement Form
- Soil Sampling Field Form
- Groundwater Sampling Field Form
- Sample Identification Matrix Form
- Data Logging Worksheet Form



1.0 INTRODUCTION

This Stage 1 Source Control Evaluation (SCE) Field Sampling Plan (FSP) describes the procedures for conducting field investigation activities adjacent to the Willamette River (River) near the Rhône-Poulenc (RP) Portland Site (Site). The RP property is located at 6200 N.W. St. Helens Road in Portland, Oregon (Figure 1). The SCE investigation is being conducted in response to a letter from the Oregon Department of Environmental Quality (DEQ) dated February 22, 2005 requesting SLLI to conduct an "investigation between the existing downgradient groundwater monitoring wells and the River...to evaluate the extent and concentration of RP-related contaminant discharges to the River."

The Stage 1 SCE FSP outlines the procedures for sampling of soil and groundwater, sample handling, field measurements, analytical methods, monitoring well installation and development, documentation, decontamination procedures, investigation derived waste (IDW) handling practices, and transducer study methodologies.

This work will be conducted according to procedures outlined in the site-specific Revised Quality Assurance Project Plan (QAPP) dated June 13, 2001 (AMEC, 2001), the Draft QAPP Addendum No. 1 (AMEC, 2002), the Site-Specific Health and Safety Plan (HASP) dated June 24, 2005 (AMEC, 2005), and subsequent addenda and updates, as appropriate.

1.1 Scope and Data Quality Objectives

The scope of work proposed along the River consists of collecting soil and groundwater samples for laboratory analysis, monitoring well installation and development, and a transducer study. The primary objective of source control evaluations is to collect the data necessary to evaluate the scope of source control actions. This Stage 1 SCE WP was designed to collect data needed to evaluate whether source control is warranted, and if warranted, the scope of the source control action(s).

The data quality objectives (DQOs) of the Stage 1 SCE are to:

1. Evaluate whether constituents are present in near-River groundwater at regulatory levels of concern;
2. Evaluate whether the constituents are from an RP source or other sources;



3. Evaluate the extent and the chemical makeup of the dioxin and chlorinated solvent plumes originating at the Arkema site flowing to the north/northwest and the potential for commingling with the RP plume;
4. Evaluate the connection, if any, between Siltronic's trichloroethylene (TCE) plume and deep TCE detected on their property;
5. Evaluate regional (Arkema, RP, Siltronic) groundwater flow direction within the Alluvium and Basalt Zones near the River; and
6. Evaluate source control actions associated with RP-related groundwater discharge to the River, if warranted.

In addition, data from this Stage 1 SCE will be used to support the planned bioremediation pilot study and facilitate transport evaluation.

1.2 Project Organization and Responsibilities

The field team will consist of a Field Manager and necessary field personnel to implement this field sampling program. The Field Manager will maintain or delegate responsibility for the logistical requirements of the sampling effort, including but not limited to:

- Event scheduling, coordination between AMEC staff, AMEC subcontractors, and representatives of off-site property owners;
- Delivery and shipping of sample containers and coolers;
- Quality assurance checking of sampling technique, documentation, and other paperwork completed by sampling crews;
- Distribution and proper use of personal protective equipment (PPE) as required by the HASP;
- Ensuring that daily health and safety meetings for field staff take place;
- Sample management and handling activities occurring at the Site; and
- Handling investigation-derived waste (IDW).

The Assistant Project Manager will be responsible for implementation of internal quality assurance (QA) checks on field procedures. The QA checks will include field procedures and health and safety reviews, to be performed by appropriate and qualified AMEC personnel not directly involved in field activities. The QA checks will



include an unscheduled field visit and observation of procedures during some field events.

The current key AMEC personnel are: Project Manager: Roger Gresh

Assistant Project Manager: Teresa Wilson

Field Manager: Christy Johnson

2.0 FIELD INVESTIGATION PROCEDURES

The field investigation to evaluate the above-listed DQOs (Section 1.1) has been divided into four tasks:

- **Task 1 Reconnaissance Activities** - Drilling of reconnaissance borings within the Stage 1 SCE study area by using both direct-push and sonic drilling technologies for lithologic logging and the collection of soil and groundwater analytical samples.
- **Task 2 Monitoring Well Installation** - Installation of up to four monitoring well clusters adjacent to the River and three monitoring well clusters located on upland areas of Arkema Lots 1 and 2;
- **Task 3 Groundwater Monitoring** - Groundwater sampling and water elevation monitoring of newly installed monitoring wells and selected existing monitoring wells; and
- **Task 4 Transducer Study** - Transducer study to be conducted within selected newly installed monitoring wells and selected existing monitoring wells.

This section describes the general approach to be employed during the Stage 1 SCE.

Drilling of the soil borings and monitoring well installation described herein will be conducted in accordance with applicable Oregon Water Resource Department (OWRD) regulations as outlined in Oregon Administrative Rule (OAR) 690-240. Borings and monitoring well installations will be accomplished by a driller licensed in the State of Oregon and will be monitored and recorded by an AMEC field representative working under the supervision of a State of Oregon registered geologist. Soil will be described in accordance with the Unified Soil Classification System. Prior to initiation of drilling or any other invasive subsurface activity, the locations of each borehole will be checked in the field to locate all underground and aboveground utilities or other physical conditions that would prevent drilling at the proposed location; the final location for each borehole will be based on the findings of the field check.



2.1 Task 1 - Reconnaissance Activities

Task 1 consists of reconnaissance activities that include drilling of reconnaissance borings directly adjacent to the River from the Burlington Northern Santa Fe (BNSF) railroad bridge to the southeastern boundary of Arkema Lot 2 (Beach Area), upland area of Lots 1 and 2 within the Arkema site (Arkema Lots 1 and 2), and the upland area directly adjacent to the River from the BNSF railroad bridge to the northwestern property boundary of Siltronic (Siltronic Riverbank) by using both direct-push and sonic drilling technologies for lithologic logging and the collection of soil and groundwater analytical samples. Analytical results will be used to evaluate whether constituents at or above regulatory levels of concern are present near the River, and to help differentiate, using chemical forensic tools, between constituents derived from the former RP facility and potential constituents from other sources.

2.1.1 Direct-Push Drilling

Proposed locations for the direct-push borings, as shown on Figure 1, will be advanced for lithologic logging and soil and groundwater characterization. Borings will be advanced to refusal depth, estimated at 50 feet (ft) below ground surface (bgs) at the Beach Area and 60 ft bgs for Arkema Lots 1 and 2. Soil sampling will be conducted continuously for lithologic logging, documentation of visually impacted soils, and selection for potential laboratory analysis. Soil samples will be archived for potential future chemical analysis from the Beach Area and Arkema Lots 1 and 2 as outlined on Table 1. Targeted zones include but are not limited to: 0 to 0.5 ft bgs, 5 to 5.5 bgs, capillary fringe, 20 to 20.5 ft bgs (Beach Area) and 30 to 30.5 ft bgs (Arkema Lots 1 and 2), and drill refusal depth. Because the water table is much shallower at the Beach Area, the 5 to 5.5 ft bgs sample may be analogous to the respective capillary fringe sample; therefore, only four depth intervals may be collected in this area. Ten soil samples from Arkema Lots 1 and 2 and the Beach Area will be analyzed for chemical constituents as summarized on Table 1. Additional soil samples will be submitted for chemical constituent analysis if visual and/or photoionization detector (PID) evidence during sample collection indicates potential soil impact. Soil samples which are submitted to the laboratory for chemical analysis as summarized in Table 1 will be analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Chlorinated herbicides by EPA Method 8151A;
- Organochlorine pesticides by EPA Method 8081A;



- Dioxins/furans by EPA Method 1613;
- Total petroleum hydrocarbons (TPH) diesel range by NWTPH-Dx;
- Polychlorinated biphenyls (PCBs) by EPA Method 8082A
- Metals by EPA Methods 6010A/6020/7470A; and
- Compound specific stable isotope analysis.

A field boring log (Appendix A-2) will be completed for each boring location and a soil sample collection form (Appendix A-2) will be completed for each soil sample collected and will be used to document sampling depths, sampling methods, sample recoveries, soil types, and stratifications, any evidence of contamination as indicated through visual observation and the use of PID, and other pertinent information.

Three reconnaissance groundwater samples will be collected per boring for the Beach Area and Arkema Lots 1 and 2. Water samples will be collected from the first water-bearing zone, directly above the clay layer, estimated at 30 ft bgs for the Beach Area and 40 ft bgs for Arkema Lots 1 and 2. Groundwater samples will be analyzed, as summarized in Table 1, for the above mentioned soil sample analytical methods, with the exception of PCBs, in addition to:

- Dissolved metals by EPA Methods 6010A/6020/7470A
- Chloride by EPA Method 300.0 (Beach Area and Arkema Lots 1 and 2 only); and
- Ammonia by EPA Method 350.0 (Beach Area and Arkema Lots 1 and 2 only).

All samples will be collected and submitted to the contract laboratories following the procedures described in this Stage 1 SCE FSP, the QAPP, subsequent addendums and updates. Samples will be contained in the appropriate sampling containers for soil and groundwater, as listed within Table 2.

Soil and groundwater samples will be collected as described in Standard Operating Procedures (SOP) 12 and 23 (Appendix A-1), respectively. Sampling equipment will be decontaminated following sample collection at each location, according to the appropriate decontamination procedures described in SOP - 3 (Appendix A-1). Waste generated during the sampling procedure will be handled in accordance with the waste handling procedures described herein and in SOP - 13 (Appendix A-1).

2.1.2 Sonic Drilling

Sonic borings along the Beach Area and Siltronic Riverbank, as shown on Figure 1, will be advanced to confirm lithologic logging from the direct-push borings, to



document the basalt surface elevation and surface condition (e.g., fracturing and weathering) and gravel thickness (if observed), and groundwater quality in the basalt zone. Borings will be drilled approximately 10 ft into the basalt. Soil sampling will be conducted continuously for lithologic logging and documentation of visually impacted soils. A field boring log (Appendix A-2) will be completed for each boring location and will be used to document sampling depths, sampling methods, sample recoveries, soil types and stratifications, any evidence of contamination as indicated through visual observation and the use of PID, and other pertinent information. Soil samples for laboratory analysis of chemical constituents will not be collected at these boring locations.

One reconnaissance groundwater sample will be collected from the basalt zone for laboratory analysis from each of the Beach Area sonic boring locations. An additional groundwater sample will be collected if the gravel unit is encountered during drilling and if a groundwater sample was not obtained from a nearby direct-push boring from this unit. Six reconnaissance groundwater samples will be collected from the Siltronic Riverbank sonic boring locations for laboratory analysis. Samples will be collected from the first water-bearing zone, 100 ft bgs, 130 ft bgs, 160 ft bgs, 190 ft bgs, gravel unit if encountered, and the basalt zone. Groundwater samples will be analyzed for the following analytical methods as outlined on Table 1:

- VOCs by EPA Method 8260B;
- SVOCs by EPA Method 8270C;
- Chlorinated herbicides by EPA Method 8151A;
- Organochlorine pesticides by EPA Method 8081A;
- Dioxins/furans by EPA Method 1613;
- TPH by NWTPH-Dx;
- Total and dissolved metals by EPA Methods 6010A/6020/7470A;
- Compound specific isotope;
- Chloride by EPA Method 300.0 (Beach Area only); and
- Ammonia by EPA Method 350.3 (Beach Area only).

All samples will be collected and submitted to the contract laboratories following the procedures described in this Stage 1 SCE FSP, the QAPP, subsequent addendums and updates. Samples will be contained in the appropriate sampling containers, as listed within Table 2.

Groundwater samples will be collected as described in the SOP - 24 (Appendix A-1). Sampling equipment will be decontaminated following sample collection at each location, according to the appropriate decontamination procedures described in SOP - 3 (Appendix A-1). Waste generated during the sampling procedure will be handled in accordance with the waste handling procedures described herein and in SOP - 13 (Appendix A-1).

2.2 Task 2 - Monitoring Well Installation

Task 2 consists of installation, construction, development, and surveying of up to four monitoring well clusters adjacent to the River and three monitoring well clusters located on Arkema Lots 1 and 2. This section describes the installation procedures and construction design for the monitoring well clusters.

2.2.1 Monitoring Well Installation

Currently, it is anticipated that three well clusters will be installed in the Beach Area and one cluster will be installed on the Siltronic Riverbank, as shown on Figure 1. In addition, up to three monitoring well clusters will be installed in Arkema Lots 1 and 2, as shown on Figure 1. The final number of monitoring wells to be installed during Task 2, the completion depth of each well, and well locations will be determined based on evaluation of the combined hydrogeologic and analytical data obtained during the Task 1 reconnaissance field investigation activities.

Monitoring wells will be installed as a cluster of wells, with a minimum 10-foot separation between each monitoring well location. Monitoring well cluster designations have been temporarily assigned to the proposed wells for clarity during planning. These designations (RP-08-S, RP-08-A, RP-08-B for the first cluster and RP-09-S, RP-09-A, and RP-09-B, etc.) will be changed to include the actual completion depths of each well. For example, if the monitoring well currently designated as RP-08-A were to be completed to a depth of 84 feet, its final designation would be RP-08-84. Monitoring well construction field forms are located in Appendix A-2.

The monitoring well clusters will be completed approximately as follows:

- Monitoring well RP-08-S will be screened within the first water-bearing zone;
- Monitoring well RP-08-A will be screened within the alluvium zone; and
- Monitoring well RP-08-B will be screened within the basalt zone.

Monitoring well clusters will be installed using track-mounted sonic drilling methods. Borings for the monitoring well installations would include continuous soil sampling to confirm lithologic logging from the direct-push borings, to document the basalt surface elevation and gravel thickness (if observed), and to document visually impacted soils. No soil samples from these borings are planned to be collected for laboratory analysis.

Prior to drilling, as part of setup activities, plastic sheeting will be laid out in the work area. Incidental spills of soil or water will be contained on the sheeting with a low berm under the sheeting.

Monitoring wells will be installed using the following completion materials, unless field observations necessitate otherwise. A schematic representation of monitoring well construction is presented in Figure 2. The monitoring well will be surged after the installation of the filter pack to prevent additional settlement of the filter pack material. Any changes to the monitoring well construction materials will be approved by the Project Manager, who may consult with SLLI, DEQ, and/or OWRD, as appropriate.

Casing and Screen:

- A sump consisting of a 0.5-foot threaded cap at the bottom of the well (included with the pre-pack well screen);
- A screened interval consisting of a 5-foot length of 2-inch diameter 0.010-inch slotted PVC casing, with a pre-pack filter of #10/20 silica sand;
- For RP-08-B (and corresponding B wells), a centralizer will be placed approximately 5 feet above the well screen; and
- A blank casing to the top of the well consisting of 2-inch diameter Schedule 40 PVC threaded well casing, and a locking waterproof well cap.

Annulus:

- Supplementary silica sand filter pack (in addition to the pre-pack filter), #10/20 grain size, to approximately 2 feet above the screened interval;
- If grout is used, 2 feet of bentonite chips will be placed above the filter pack;
- The seal installed at monitoring well RP-08-S (and corresponding S wells) will consist of bentonite chips from the top of the filter pack to within 3 feet of the ground surface;
- The seal installed at monitoring wells RP-08-A and RP-08-B (and corresponding A and B wells) will consist of a bentonite grout seal (30% solids) from the top of the bentonite chips to within 3 feet of the ground surface; and



- The surface of each well will be completed with a concrete seal at least 3 ft thick and a concrete surface pad.

Well Head Completion:

- All monitoring wells will be installed with above ground monuments unless traffic patterns require flush-mount monuments;
- A 2x2 ft concrete pad with a minimum thickness of 4 inches will be constructed around each monument at the ground surface to divert rainfall away from the well casing; and
- Above ground monuments will extend 3 ft above ground surface with hollow steel casing around the monitoring well for protection and a steel locking cover. In addition, three 6 ft tall steel bollards filled with concrete will extend 3 ft above ground surface surrounding each well for protection.

Following well installation, the work area will be cleaned and all wastes generated will be contained and removed from BNSF, Siltronic, and Arkema properties in accordance with the waste handling procedures described herein and in SOP - 13 (Appendix A-1). Drilling equipment will be decontaminated at the RP property in a designated bermed area. Decontamination procedures will follow those outlined in SOP - 3 (Appendix A-1).

2.2.2 Monitoring Well Development

Monitoring wells will be developed following installation to flush out particles that may remain in the filter pack material after installation and to ensure that the monitoring well is in hydraulic connection with the surrounding formation. Newly installed monitoring wells will be developed after the final grout or bentonite chips have set in the well annulus for a minimum of 24 hours.

The newly installed monitoring wells will be developed according to SOP - 14, Methodology for Monitoring Well Development (Appendix A-1). Procedures will include surging each monitoring well with a surge block, and purging five to eight well volumes of water. Well development activities will be recorded on the Well Development Log included in Appendix A-2.

2.2.3 Surveying

Following completion of well installation, the location and elevation of each newly installed monitoring well will be surveyed by a licensed surveyor. The survey data will

be collected in a coordinate system consistent with other RP Site wells. The survey data will be entered into the project database and quality checked.

2.3 Task 3 - Groundwater Monitoring

Task 3 consists of groundwater sampling and water elevation monitoring of newly installed monitoring wells and selected existing monitoring well clusters to evaluate groundwater quality and vertical and lateral hydraulic gradients near the RP Site.

2.3.1 Water level Monitoring

Water level measurements will be collected and used to evaluate the general direction of groundwater flow, vertical hydraulic gradients, and other hydraulic characteristics of the hydrogeologic units.

Groundwater elevations and non-aqueous phase liquid (NAPL) thickness measurements will be collected from the 123 existing monitoring wells and the additional monitoring wells installed as part of Task 2. Surface water elevations will be collected at three staff gauges in North Doane Lake, West Doane Lake, and the Northwest Drainage Pond. All depth to water measurements will be conducted in accordance with the SOP - 1 located in Appendix A-1. Water level measurements will be collected during the second groundwater sampling event discussed in further detail below.

2.3.2 Groundwater Sampling

The groundwater monitoring has been divided into two separate events based on the overall project schedule as discussed in Section 8.0 of the Stage 1 SCE WP. The first groundwater monitoring event will be conducted following the installation of the monitoring well clusters on Arkema Lots 1 and 2 and will include sampling of these wells in addition to RP monitoring well clusters MW-05, RP-01, RP-02, and W-19 and Arkema monitoring wells MWA-3, MWA-5, MWA-9i, MWA-13d, MWA-14i, MWA-17si, and MWA-21b. The second groundwater monitoring event will occur following the installation of monitoring wells at the Beach Area and Siltronic Riverbank. This event will include the wells sampled during the first event in addition to RP monitoring well cluster RP-07 and Siltronic monitoring well pairs WS-11 and WS-12. Groundwater monitoring locations are shown on Figure 3. All groundwater sampling will be conducted in accordance with SOP - 2 (Appendix A-1) and in general accordance with applicable portions of AMEC's Final Post-Characterization Groundwater Monitoring Plan dated February 17, 2004.

Groundwater samples will be analyzed for the following analytical methods and are summarized in Table 1:

- VOCs by EPA Method 8260B;
- SVOCs by EPA Method 8270C;
- Chlorinated herbicides by EPA Method 8151A;
- Organochlorine pesticides by EPA Method 8081A;
- Dioxins/furans by EPA Method 1613;
- TPH by NWTPH-Dx;
- Total and dissolved metals by EPA Methods 6010A/6020/7470A;
- Compound specific stable isotope analysis; and
- Natural attenuation parameters.

All samples will be collected and submitted to the contract laboratories following the procedures described in this Stage 1 SCE FSP, the QAPP, subsequent addendums, and updates. Samples will be contained in the appropriate sampling containers, as listed within Table 2.

2.4 Task 4 - Transducer Study

Immediately following the groundwater sampling events, a transducer study will be conducted within selected newly installed monitoring well clusters and selected existing monitoring well clusters to evaluate hydraulic gradients and tidal influence on the water-bearing zones near the River. A pressure transducer will be installed in each monitoring well in well clusters W-19, RP-02, and in each well of two of the newly installed Beach Area and/or Arkema Lot 1 and 2 monitoring well clusters. Final study locations will be determined following the evaluation of hydrogeologic data collected from Tasks 1 through 3 of this Stage 1 SCE.

Transducers will be installed and data loggers programmed as outlined in SOP - 22. Data loggers will be programmed to start simultaneously and will record pressure data at 15 minute intervals for a period of 30 days. Following the completion of the 30 day study period, data loggers will be downloaded and the data will be processed for evaluation of hydraulic gradients and tidal influence.



2.5 Sample Designation and Handling

Sample handling and designation procedures were developed to provide sufficient project-specific QA and quality control (QC) measures. Specific QA/QC requirements and procedures are described in this section and in SOP - 2 and SOP - 12, and include:

- QC sample collection requirements;
- Sample container requirements and preservation;
- Sample documentation and handling; and
- Chain-of-custody documentation.

2.5.1 QC Sample Collection Requirements

A variety of QC samples are required in order to assess performance of the project team in collection and analysis of the groundwater and soil samples. QC samples required for this sampling and analysis program include the following where applicable:

Field Duplicate Samples:	One duplicate per 20 requests for each analytical procedure, with a minimum of one per procedure (with the exception of most inorganic and physical parameters).
Interlaboratory Split Samples:	One split sample per 20 requests for each analytical procedure, with a minimum of one per procedure (with the exception of most inorganic and physical parameters).
Rinsate Blanks:	One rinsate blank per 20 samples when disposable or dedicated sampling equipment is used; otherwise, 1/day/media, to be analyzed for all parameters except physical parameters.
Trip Blanks:	One trip blank per cooler containing vials for VOC analysis.
Laboratory QC Samples:	One laboratory QC sample per 20 requests for each analytical procedure, with a minimum of one per procedure (with the exception of most inorganic and physical parameters).



Field duplicates are replicate samples collected at the same location during the same sampling session (roughly at the same time) and submitted in blind form to the contract laboratory. Field duplicates provide an indication of the reproducibility of the sampling and analysis procedures for a given sample matrix, including heterogeneity of the sample itself. Field duplicate samples will be collected by alternating between the sample and the replicate as each container is filled simultaneously with equal volumes. The field duplicates will be collected in the same container types and handled and analyzed in the same manner as all other samples of like media.

Inter-laboratory split samples are field duplicates that are shipped to both the primary laboratory and a QC laboratory. They are collected in a manner identical to that described for field duplicates.

A rinsate blank serves as an indicator of potential contamination resulting from inadequate decontamination of sampling equipment. Laboratory supplied deionized water or distilled deionized water is passed through (or across) the sampling equipment after the decontamination procedure is complete, and collected in the appropriate sample containers.

A trip blank is a container filled by the laboratory with analyte free water and never opened in the field. It is used to assess possible contamination during transport and storage of sample containers. Trip blanks and associated sample containers should remain in the same cooler the laboratory shipped them in or in the on-site refrigerator and not be intermingled with bottles from different batches. The trip blank will be kept with samples planned for VOC analysis and will be analyzed for VOCs only.

Laboratory QC samples are field samples that are designated for laboratory QC procedures such as duplicate analysis or matrix spike analysis. Extra volume must be collected for laboratory QC samples to ensure the laboratory has sufficient volume to perform all required analyses.

2.5.2 Sample Containers

The contract laboratory will supply pre-cleaned, certified bottles appropriate for the required analysis. Sample container quality protocols will be strictly enforced and assured by the laboratory. The laboratory shall retain certificates of analysis from each lot of bottles for a period of at least five years. Bottles supplied by the laboratory shall contain any required chemical preservative, except when necessary to field preserve. Field preservation will be conducted under specific direction from the laboratory. Sample containers will be kept closed until used. Required sample

containers, preservation, and holding time requirements for this project are described in Table 2.

2.5.3 Sample Designation and Labeling

The purpose of sample designation and labeling is to enable discrete sample tracking. Each sample will be given a discrete sample identification number (ID). All samples will be tracked on the appropriate field form and a Sample Identification Matrix form (Appendix A-2) by sampling location and sample ID. Each sample ID will be designated by the following identification system:

- Each sample location will have a three-digit number that will be in sequence with the previous sample collected. For example, a soil sample collected at sampling location ARK-001-S would have a sample ID of 001. A groundwater sample collected from ARK-001-GW would be designated as 002 and so on.
- A QA/QC designation will be assigned to the sample as follows:
 - 01 Primary Sample
 - 02 Field Duplicate
 - 03 Trip Blank
 - 04 Rinsate Sample
 - 05 Interlaboratory Duplicate

For example, a primary soil sample collected at SCE-001-S would be designated 001-01 and the field duplicate would be assigned a sample ID of 001-02. A rinsate sample collected after sampling would have a sample ID of 001-04.

No indication of QA/QC designation will be provided to the lab, with the exception of additional quantities of sample for the laboratory matrix spike (MS) and matrix spike duplicate (MSD). The sample location or well number will not be recorded on the sample label or chain-of-custody form. The sample containers designated for MS and MSD analysis will be labeled the same as the primary sample. However, on the chain-of-custody form the extra quantity for the MS/MSD will be identified. This will assist the laboratory in reporting MS/MSD results as associated with the correct primary field sample results.

All samples will be tracked in the Sample Identification Matrix form, Appendix A-2, ensuring to note the media type for each sample. This procedure will aid in cross-referencing of sample locations with their respective sample ID. Duplicates and blanks will also be noted on the form with their respective sample IDs. This form will



also serve as a cross-checking mechanism to ensure sampling is not unnecessarily duplicated.

Sample labels will be preprinted with project name and number. Items including sample ID, date and time of collection, and sample collector will be indicated on the sample label and will be filled out in the field. In addition, the analysis method and/or analyte(s) will be specified on the label for each container.

2.5.4 Sample Preservation and Holding Times

Field personnel will verify that the correct laboratory-supplied bottles are used for each sample and labeled with the corresponding intended analysis.

All samples will be placed in a cooler with blue ice or double-bagged wet ice immediately after collection. The target temperature for the cooler is 4 degrees Celsius ($^{\circ}\text{C}$) or less. Samples will be transported to the contract laboratory as soon as possible after collection. This will allow rapid transfer of the samples into controlled, refrigerated storage, and allow the contract laboratory adequate time to meet required analytical holding times as described in Table 2. A temperature blank, when provided by the laboratory with the sample bottles, will be included in each cooler so the laboratory can verify sample temperature upon receipt.

2.5.5 Sample Storage, Packaging, and Transport

Sample Storage

All samples will be in possession of an AMEC field representative or designated AMEC staff member at all times until custody is relinquished to the laboratory (in person or through shipment), or until the samples are placed in a secure storage location. Samples will be placed into metal or plastic picnic coolers at a target temperature of 4°C , or in a refrigerator designated for sample storage. Ice will be added, as necessary, to maintain the target temperature.

Sample Packaging

Samples will be transported in the same coolers used for sample storage. Each cooler or daily set of coolers will be accompanied by a chain-of-custody form. The chain-of-custody form will be completed, sealed in a resealable bag to prevent damage to the document, and taped to the top of the cooler (or one of the coolers if there are multiple coolers for a sample set). Each cooler will then be sealed with signed, self-adhesive chain-of-custody seals prior to transport.



Sample Transport

Sample coolers will be placed into the back of a field vehicle for transport to the contract laboratory or to the AMEC office. All samples collected for VOC analysis will be transported in the same cooler with the trip blank.

Individual glass sample containers will be wrapped in bubble wrap bags or placed in closed-cell foam packaging. Samples with numerous aliquots per sample set will be placed in resealable bags to help keep sets together. Plastic sample containers will be placed in resealable bags, but not bubble wrap.

Samples designated to be analyzed at out-of-area laboratories will be repackaged (as necessary) at the AMEC office for shipping. Bubble wrap and foam may be used to help prevent sample breakage during shipping. Samples will be packed into coolers with blue ice and labeled appropriately for shipping. Common carriers may be used for shipping. A chain-of-custody form will accompany all coolers during shipment. Although common carriers do not typically sign chain-of-custody forms, the receipt for shipment will be retained as evidence of sample transport.

2.5.6 Chain-of-Custody Procedures

The chain-of-custody is an integral component of the sampling process as it stands as a permanent record of sample holding and shipment. Sample custody is documented from collection through transport, analysis, and reporting.

Samples will remain in the custody of field personnel or appropriate AMEC staff until receipt by the laboratory. The corresponding chain-of-custody form is in plain view at all times, in physical possession, or in a locked location where no tampering will occur. The chain-of-custody form will be cross-checked for errors and signed. Any errors will not be erased, but will have a single strikethrough, with the change dated and initialed.

All samples will be hand-delivered to a laboratory representative or shipped according to the procedures described in Section 2.5.5. Coolers with their respective chain-of-custody form(s) will be checked into the laboratory by a laboratory representative, and the chain-of-custody form will be signed and dated appropriately. The field representative or AMEC staff member will retain one copy of the signed chain-of-custody form for the project files. The laboratory representative will verify cooler temperature, sample designation, and other relevant sample conditions. The original chain-of-custody form or a photocopy will be returned to the project manager with the analytical results to go into the project files.



2.6 Documentation

Verifiable sample custody is of primary importance during field and laboratory procedures. Such practices ensure all samples have been properly acquired, preserved, and identified. This information will be collected in a variety of formats that will all be specific to the function they perform in the sampling procedure (e.g., field logbooks, groundwater sampling forms, sample labels, chain-of-custody forms). Accurate sampling records create a complete record of all field procedures, including circumstances of collection and integrity of the given sample. This will also allow for detailed tracking of all samples from collection through transport and laboratory analysis. This will also facilitate the import of field data and laboratory analyses into the database system. The following information outlines specific procedures that will be implemented during field water sampling activities.

2.6.1 Field Logbooks

Field logbooks will be the main source of field documentation for all field activities. The books will be permanently bound, with waterproof pages, chosen for their secure binding and durability in adverse field conditions. All pages will be numbered consecutively. All pages will remain intact and no page will be removed for any reason. Notes will be taken in indelible, waterproof, blue or black ink. The front and inside of each field logbook will be marked with the project name, number, logbook number and AMEC's address and phone number. The field logbooks will be stored in the project files when not in use and upon completion of each sampling event. The first entry at the beginning of each day will include the date and time, project number, names of all field personnel on-site (including subcontractors and the company for which they work), weather conditions, and the purpose of fieldwork. Each subsequent page will be started with the project number and the date. The bottom of each page will have the date and the initials of all personnel entering information onto that page. Any remaining unused lines will be crossed through. Errors will not be erased. All errors will have a single strikethrough with an initial and date next to the strikethrough and the subsequent change made.

Information included in the field logbooks may include, but not be limited to, the following items:

- Reasons for collecting samples (e.g., annual sampling event).
- Field observations relevant to the sampling event, including weather (wind direction and approximate speed, air temperature, sky cover) and any events that may have occurred previous to sampling which may influence the integrity or the representative nature of the sample.



- Observations of site activities not covered under regular activities, including presence of persons on-site not related to the sampling activities (subcontractors, DEQ, and others), and actions by those people affecting task performance.
- Sketches of relevant information.
- Information relevant to a change in scope or change in Stage 1 SCE FSP procedure, with documentation of subsequent AMEC and/or SLLI approval.
- Type and/or level of health and safety equipment used.
- References to information on other field forms, such as the Soil and/or Groundwater Sampling Field Form (discussed below).

All information compiled in the field logbook, will be written legibly in language that is clear and concise, without interpretation.

2.6.2 Field Sampling Forms

A separate and complete Soil Sampling Form, or Groundwater Sampling Form (Appendix A-2), will be created for each soil or groundwater sample location respectively. Errors will not be erased. All errors will have a single strikethrough with an initial and date next to the strikethrough and the subsequent change made. Information collected during sampling will be marked on the form, in addition to notes taken in the field logbook.

Information may include, but will not be limited to:

- Date and time of sampling for each sample, field sample collection, and laboratory sample collection;
- Boring or well identification;
- Sample media type and description of sample location;
- Sample identification or naming system, including each unique sample name/number;
- Method of sampling, including procedures and equipment, as well as any variance from the methods in this Stage 1 SCE FSP;
- Volume of sample collected per sample container, type of sample container, and number of aliquots per sample;
- Sample preservation techniques and analyses requested;
- Results of field measurements (i.e., headspace readings, temperature, pH etc.);



- Information relevant to quality control (i.e., sampling discrepancies or difficulties; unexpected conditions or abnormal sampling procedures);
- Weather conditions;
- Laboratory samples collected, specifically sample identification and QA/QC samples identification, if applicable;
- Depth to water and depth to bottom including depth to water measurements made while purging and sampling;
- Purge method, time, and volume;
- Waste disposal method; and
- Decontamination method.

The fields within the form will help ensure that pertinent information will be documented appropriately.

2.6.3 Well Construction/Boring Log Form

In a drilling investigation, a boring log should be completed by the site geologist. A standard boring log form will be used to record the following information, as applicable:

- The boring number and/or monitoring well number;
- Drilling method and borehole diameter;
- Dates of start and completion of boring/well;
- Weather conditions;
- Sampling methods;
- Depths to water while drilling;
- Total depth of boring;
- Drilling characteristics (e.g., penetration rates, voids encountered);
- Drilling contractor and names of drillers and helpers;
- Geologist name and affiliation;
- Lithologic description of collected samples and cuttings, as appropriate, such as: density, moisture, color, modifier, soil classification including percentages of granular constituents, other macroscopic characteristics including structures, organic materials, oxidation mottling, etc.;
- Sample recovery, identification, and time;

- Number of containers collected and volume of each container;
- Obvious staining or contamination, or anything that could influence sample results;
- Breathing zone PID readings, field volatile (headspace) PID readings obtained from closed-bag samples, as well as borehole PID readings;
- Monitoring well "as-built" information (construction details); and
- Start card number if applicable.

2.6.4 Well Development Log Form

The Well Development Log form (Appendix A-2) will be used to record the following information, as applicable:

- The monitoring well number;
- Well development method;
- Volume of water removed from well;
- Sediment in well bottom;
- Water clarity;
- Results of field measurements (i.e., turbidity); and
- Dates and time of start and completion

2.6.5 Water Level and NAPL Thickness Measurement Form

A separate Groundwater Level and NAPL Thickness Measurement Form will be used to record water levels, NAPL thicknesses, well total depth, and date and time of measurement (Appendix A-2). Staff gauge outfall discharge levels, as appropriate, will also be entered on this form. Errors will not be erased. All errors will have a single strikethrough with an initial and date next to the strikethrough and the subsequent change made.

2.6.6 Photographs

Photographs will be taken for the purpose of documenting data collection location, location appearance, proximity to RP Site facilities, proximity to topographic features, field activities, or other relevant field observations for which notes or sketches are inadequate. Each photograph will be documented in the field logbook. This documentation will include, but is not limited to, the photographer, date and time of photograph (if not automatically imprinted on the photograph), and sample subject.



2.7 Decontamination

All equipment used to collect down-hole measurements that may come into contact with sample water (e.g., water level probe) will be decontaminated between each use. This will not be the case for disposable equipment (e.g., bailers and sample tubing). Decontamination procedures will help to eliminate cross-contamination between samples, a situation that leads to analytical results that may misrepresent the natural subsurface conditions. Equipment will be decontaminated as follows:

- Soap wash (dilute solution of Alconox or equivalent in potable water solution);
- Potable water rinse;
- Solvent rinse (methanol or similar solvent); and
- Rinse with distilled or deionized water.

The casing, drill rods, bits, and other drilling equipment will be steamed cleaned prior to arrival at the site and between borings. Further details regarding decontamination procedures are provided as SOP - 3 in Appendix A-1.

3.0 WASTE DISPOSAL AND HANDLING PROCEDURES

All IDW generated during the investigation will be handled in such a way as to prevent or minimize the potential for the spread of contamination, the creation of a sanitary hazard, or visual degradation of the Site through the spread of litter. The IDW will remain under the control of SLLI and its contractor at all times during its generation, containerization, and transport to the RP facility for consolidation and shipment.

Wastes generated during the field investigations covered by this Stage 1 SCE FSP will include soil cuttings, decontamination fluids, purge water, personal protective equipment, disposable sampling equipment, and miscellaneous solid waste. Waste will be handled according to procedures specified in SOP - 13, Waste Handling and Disposal Procedure (Appendix A-1).



REFERENCES

AMEC, 2001. *Revised Quality Assurance Project Plan, RPAC - Portland Site*, prepared for Aventis CropScience, prepared by AMEC Earth & Environmental, submitted to Oregon Department of Environmental Quality, June 13, 2001.

AMEC, 2002. *Draft Quality Assurance Project Plan Addendum No. 1, RPAC - Portland Site*, prepared for RPAC, prepared by AMEC Earth & Environmental, Inc. submitted to Oregon Department of Environmental Quality, August 1, 2002.

AMEC, 2005. *Site-Specific Health and Safety Plan, RP - Portland Site*, prepared by AMEC Earth & Environmental, Inc. submitted to Oregon Department of Environmental Quality, June 24, 2005.

DEQ 2005. Letter from Thomas E. Roick, *Source Control Evaluation, Rhone Poulenc Portland Site*. February 22.



LIMITATIONS

This report was prepared exclusively for SLLI by AMEC Earth & Environmental, Inc. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This Stage 1 Source Control Evaluation Field Sampling Plan is intended to be used by SLLI for the RP Portland Site, 6200 N.W. St. Helens Road, Portland, Oregon only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

TABLES

TABLE 1
Investigation Locations and Analytical Methods
Stage 1 Source Control Evaluation Field Sampling Plan
RP - Portland Site

Task	Study Area	Investigation Method	Sampling Media	Analytical Requirements																	
				Proposed Analytical Sampling Depth ^(A)	VOCs by EPA Method 8260B	SVOCs by EPA Method 8270C	Herbicides by EPA Method 8151A	Pesticides by EPA Method 8081A	Dioxins/ Furans by EPA Method 1613	PCBs by EPA Method 8082A	TPH Diesel Range by NWTPH-Dx	Metals by EPA Method 6010A/6020/7470A ^(B)	Compound Specific Isotope Analysis (GC/C/IRMS)	Chloride by EPA Method 300.0	Ammonia by EPA Method 350.3	Natural Attenuation Parameters ^(C)	Hydrogeologic Parameters ^(E)				
Task 1 - Reconnaissance Activities	Arkema Lots 1 and 2	Direct-Push	Soil ^(F)	0-0.5 ft bgs	A	A	A	A	A	A	A	A	A				X ^(D)				
				5-5.5 ft bgs	A	A	A	A	A	A	A	A	A				X ^(D)				
				Capillary Fringe	A	A	A	A	A	A	A	A	A				X ^(D)				
				30-30.5 ft bgs	A	A	A	A	A	A	A	A	A				X ^(D)				
			Groundwater	Refusal Depth	A	A	A	A	A	A	A	A	A						X ^(D)		
				First WBZ	X	X	X	X	X	X	X	X	X	X	X	X					
				40 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X				
				Refusal Depth	X	X	X	X	X	X	X	X	X	X	X	X	X				
				Beach Area	Direct Push	Soil ^(F)	0-0.5 ft bgs	A	A	A	A	A	A	A	A	A	A				X ^(D)
							5-5.5 ft bgs	A	A	A	A	A	A	A	A	A	A				X ^(D)
			Capillary Fringe				A	A	A	A	A	A	A	A	A	A				X ^(D)	
			20-20.5 ft bgs				A	A	A	A	A	A	A	A	A	A				X ^(D)	
			Groundwater	Refusal Depth		A	A	A	A	A	A	A	A	A	A				X ^(D)		
				First WBZ		X	X	X	X	X	X	X	X	X	X	X	X	X			
	30 ft bgs	X		X		X	X	X	X	X	X	X	X	X	X	X					
	Refusal Depth	X		X		X	X	X	X	X	X	X	X	X	X	X					
	Sonic	Soil Groundwater		No Samples Planned																	
				Gravel WBZ		X	X	X	X	X	X	X	X	X	X	X	X				
	Silttronic Riverbank	Sonic	Soil Groundwater	Basalt WBZ	X	X	X	X	X	X	X	X	X	X	X	X					
				No Samples Planned														X ^(D)			
	First WBZ		X	X	X	X	X	X	X	X	X	X									
	100 ft bgs		X	X	X	X	X	X	X	X	X	X									
	130 ft bgs		X																		
	160 ft bgs		X																		
	190 ft bgs		X																		
	Gravel WBZ		X	X	X	X	X	X	X	X	X	X	X								
Task 2 - Monitoring Well Installation	Various	Sonic	Soil Groundwater	No Samples Planned																	
Task 3 - Groundwater Monitoring	Various	NA	Groundwater	Various	X	X	X	X	X		X	X	X	X	X	X					
Task 4 - Transducer Study	Various	NA	NA	NA																	

Notes:
(A) Sampling depths may be adjusted based on field observations.
(B) Total and dissolved metals analysis for groundwater samples. Metals include: aluminum, calcium, iron, magnesium, potassium, sodium, arsenic, cadmium, chromium, copper, lead, manganese, nickel, vanadium, zinc, and mercury.
(C) Natural attenuation parameters include: ferrous iron, microbial enumerations, nutrients, total organic carbon, chemical oxygen demand, sulfate, sulfide, total alkalinity, major cations, and methane.
(D) Discrete soil samples will be analyzed for hydrogeologic parameters. Sampling depths will include planned groundwater sample intervals and depths based on field observations.
(E) Hydrogeologic parameters include: total organic carbon, mechanical sieve and 200 wash.
(F) Ten soil samples will be analyzed for VOCs, SVOCs, herbicides, pesticides, dioxins/furans, PCBs, TPH diesel range, metals and compound specific isotope analysis. Additional soil samples will be analyzed for chemical constituent analysis if visual and/or photoionization detector evidence during sample collection indicates potential soil impact.

A = Archive, analyze only if evidence of contamination
bgs = below ground surface
CF = capillary fringe
EPA = United States Environmental Protection Agency
ft = feet
GC/C/IRMS = Gas Chromatography/Combustion Interface/Isotope Ratio Mass Spectrometer
NA = Not applicable
PCBs = Polychlorinated biphenyls
SVOCs = Semivolatile organic compounds
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile organic compounds
WBZ = Water-bearing zone

TABLE 2
Laboratory Container, Preservation, and Holding Times
Stage 1 Source Control Evaluation Field Sampling Plan
RP - Portland Site

Method	Analysis	Container	Preservation	Holding Time
Soil Media				
EPA 8081A	Organochlorine Pesticides	8 oz Glass Jar ¹	Cool to 4°C	14/40 days ²
EPA 8151A	Chlorinated Herbicides	8 oz Glass Jar ¹	Cool to 4°C	14/40 days ²
EPA 8260B	VOC	4 oz Glass Jar	Cool to 4°C (no headspace)	14 days
EPA 8270C	SVOC	8 oz Glass Jar ¹	Cool to 4°C	14/40 days ²
EPA 1613	Dioxins/Furans	4 oz Glass Jar	Cool to 4°C	30/45 days ²
EPA 6010B/6020	Total Recoverable Metals	8 oz Glass Jar ¹	Cool to 4°C	6 months
EPA 7471A	Total Recoverable Mercury	8 oz Glass Jar ¹	Cool to 4°C	28 days
EPA Method 8082A	PCB	8 oz Glass Jar ¹	Cool to 4°C	14/40 days ²
NWTPH-Dx	TPH Diesel Range	8 oz Glass Jar ¹	Cool to 4°C	14 days
Compound Specific Isotope	GC/C/IRMS	2 oz Glass Jar	Cool to 4°C Methanol	None
Groundwater Media				
EPA 8260B	VOC	4 - 40 mL Glass Vials	4°C, HCl to pH < 2 (no headspace)	14 days
EPA 8270C	SVOC	2 - 1L Amber Glass Bottles	Cool to 4°C	7/40 days ²
EPA 8151A	Chlorinated Herbicides	2 - 1L Amber Glass Bottles	Cool to 4°C	7/40 days ²
EPA 8081A	Organochlorine Pesticides	2 - 1L Amber Glass Bottles	Cool to 4°C	7/40 days ²
EPA 1613	Dioxins/Furans	2 - 1L Amber Glass Bottles	Cool to 4°C	30/45 days ²
NWTPH-Dx	TPH Diesel Range	2 - 1L Amber Glass Bottles	4°C, HCl to pH < 2	7 days
EPA 6010B/6020 7470A	Total Recoverable Metals Total Recoverable Mercury	1 - 500 mL or 250 mL HDPE	Cool to 4°C, HNO ₃ to pH < 2	180 days 28 days
EPA 6010B/6020 7470A	Dissolved Metals Dissolved Mercury	1 - 500 mL or 250 mL HDPE	Field Filter, HNO ₃ to pH < 2, Cool to 4°C	180 days 28 days
Compound Specific Isotope	GC/C/IRMS	3 - 40 mL Vials	Cool to 4°C Trisodium phosphate	None
EPA Method 300.0	Anions (Chloride, Sulfate) (Nitrate, Nitrite, Orthophosphate)	1 L HDPE*	Cool to 4°C	28 days 48 hours
EPA Method 350.3	Ammonia	500 mL HDPE**	4°C, H ₂ SO ₄ , to pH < 2	28 days
EPA 376.2	Sulfide	500 mL HDPE	4°C, ZnAc and NaOH to pH > 9	7 days
EPA Method 310.1	Alkalinity (Total)	250mL HDPE	Cool to 4°C	14 days
EPA 415.2	Total Organic Carbon (TOC)	500 mL HDPE**	4°C, H ₂ SO ₄ , to pH < 2	28 days
GC/FID-RSK 175	Methane	4 - 40 mL Glass Vials	4°C, HCl to pH < 2	14 days

TABLE 2
Laboratory Container, Preservation, and Holding Times
Stage 1 Source Control Evaluation Field Sampling Plan
RP - Portland Site

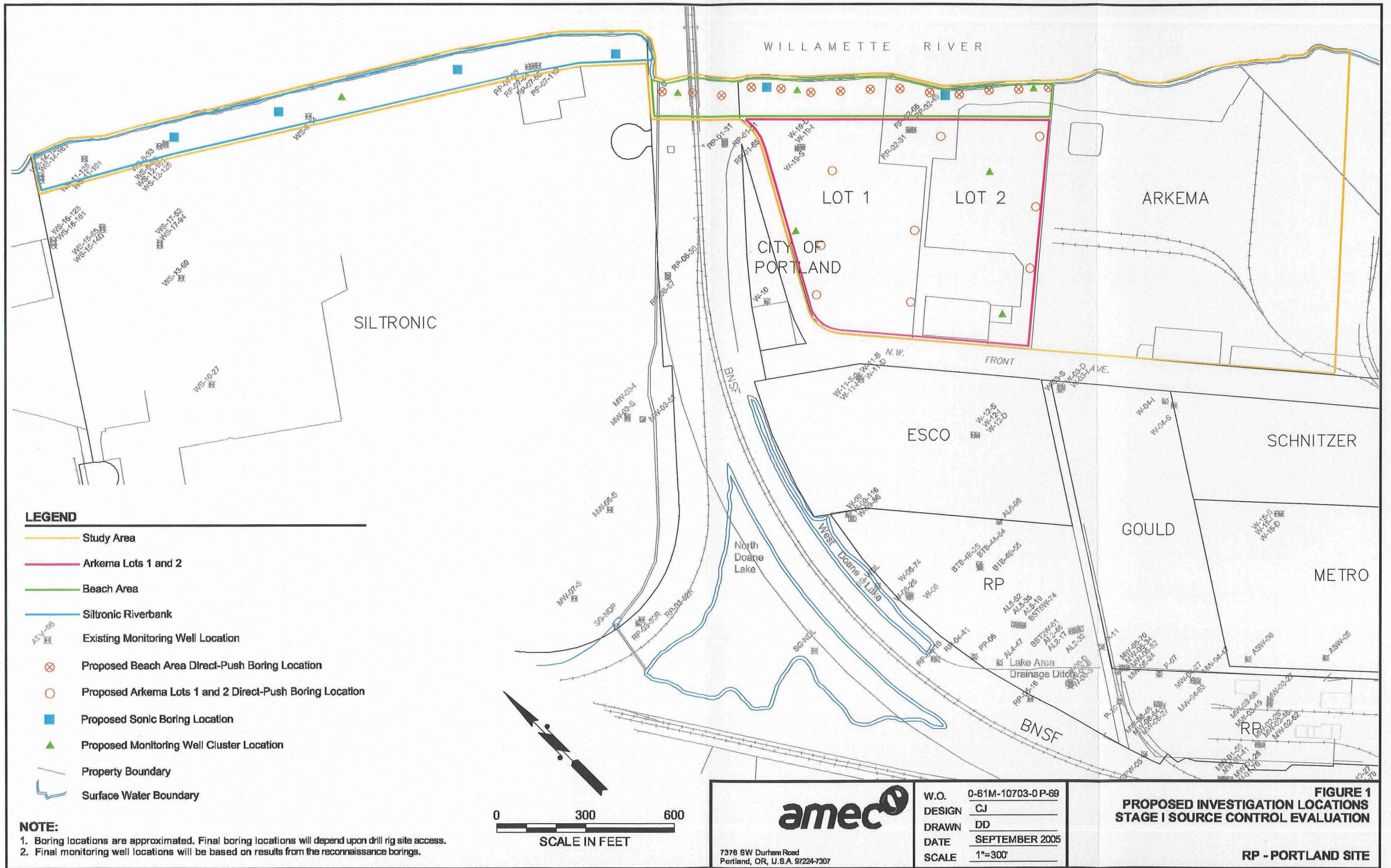
Method	Analysis	Container	Preservation	Holding Time
EPA 410.4	Chemical Oxygen Demand (COD)	500 mL HDPE**	4°C, H ₂ SO ₄ , to pH < 2	28 days
EPA 405.1	Biological Oxygen Demand (BOD)	1 L HDPE	Cool to 4°C	48 hours
SM 9215 ³	Total Heterotrophic Plate Count, Diesel Degrading Bacteria	125 mL plastic Sterile Collection Vessel	4°C, Na ₂ S ₂ O ₃	24 hours
EPA 160.2	Total Suspended Solids (TSS)	1 L HDPE	Cool to 4°C	7 days

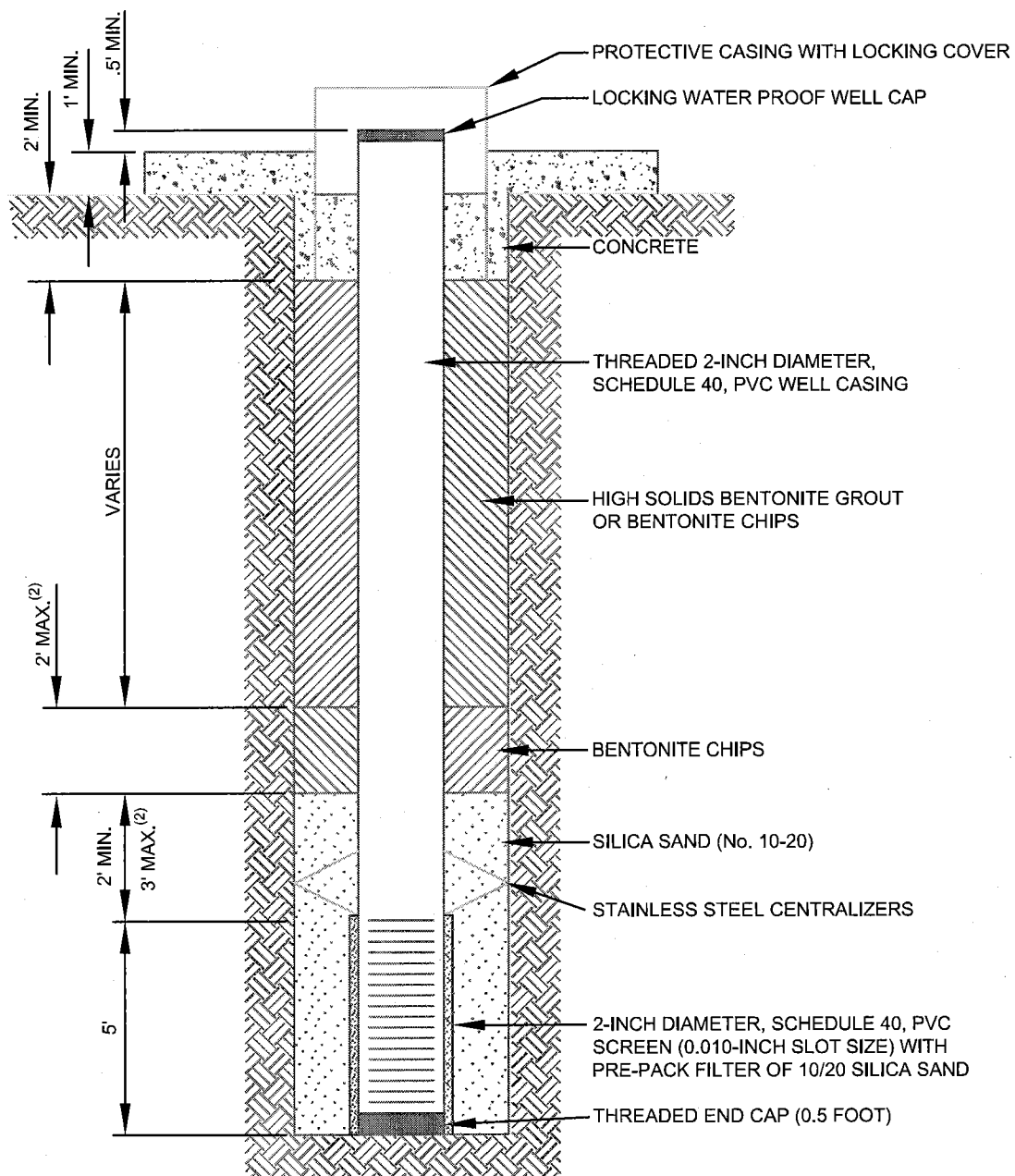
Note:

- ¹ Multiple tests may be performed from the same 8 oz. jar, a jar is not required for each individual test.
² Number of days from time of collection until extraction/number of days from time of extraction until analysis.
³ Diesel degrading bacteria are determined using a modified procedure.
* Alkalinity and anions can be extracted from the same container.
** Ammonia, total organic carbon, and COD can be extracted from the same container.

EPA	United States Environmental Protection Agency
GC/C/IRMS	Gas Chromatography/Combustion Interface/Isotope Ratio Mass Spectrometer
PCB	polychlorinated biphenols
SVOC	semivolatile organic compound
TPH	Total Petroleum Hydrocarbons
VOC	volatile organic compound

FIGURES





**TYPICAL MONITORING WELL CONSTRUCTION
WITH ABOVEGROUND MONUMENT ⁽¹⁾**

NOTES

1. THE MONUMENT TYPE (FLUSH-MOUNTED OR ABOVE GROUND) TO BE USED WILL DEPEND ON TRAFFIC PATTERNS.
2. IF GROUT IS USED, 2 FEET OF BENTONITE CHIPS WILL BE PLACED ABOVE FILTER PACK.

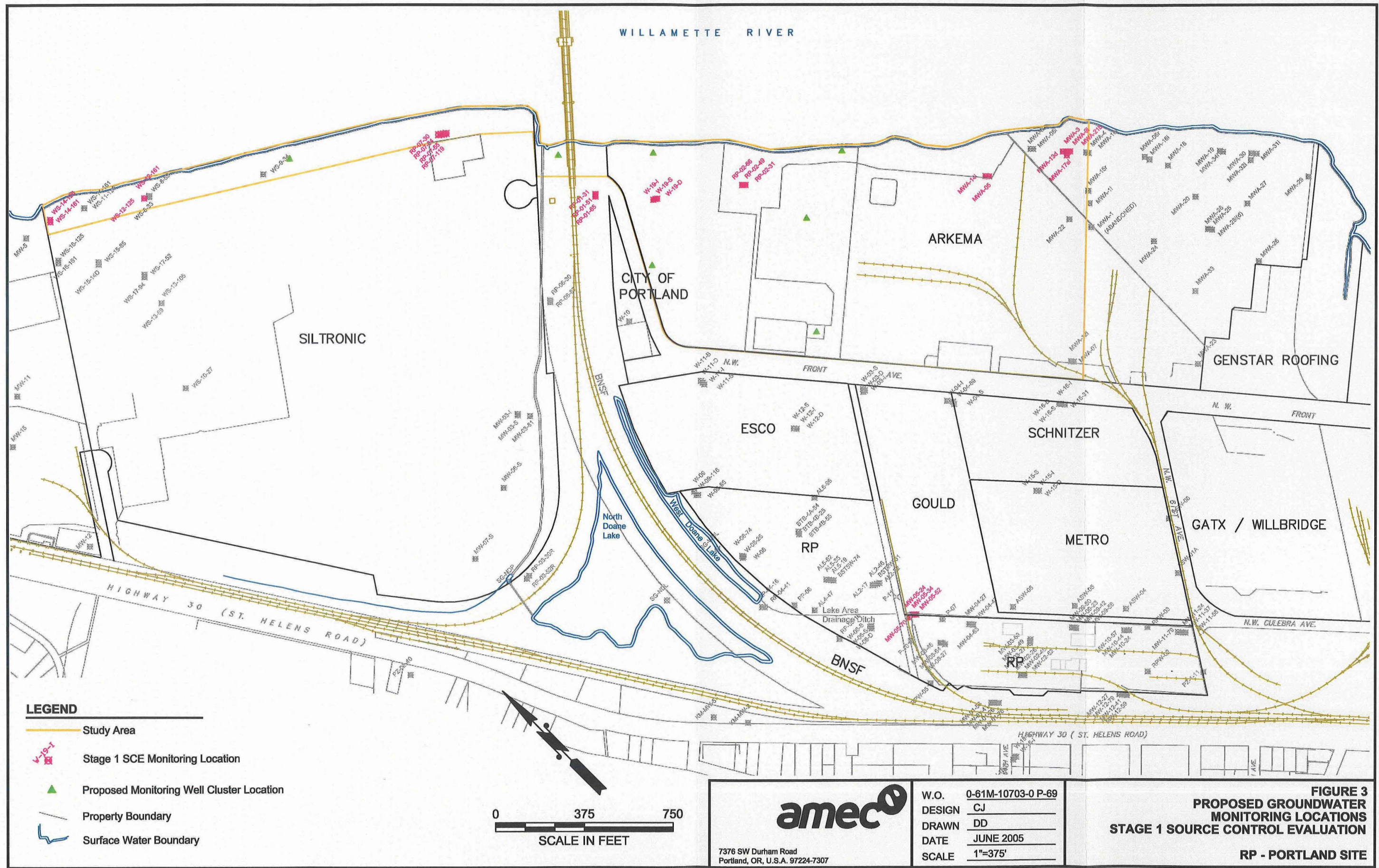


7376 S.W. Durham Road
Portland, OR, U.S.A. 97224

W.O.	0-61M-10703-0 P-69
DESIGN	LG
DRAWN	DD
DATE	JUNE 2005
SCALE	NOT TO SCALE

**FIGURE 2
PROPOSED MONITORING WELL
CONSTRUCTION SCHEMATIC**

RP - PORTLAND SITE



AMEC DRAWING NO. K: \10000 \10700 \10703 \Phase 69 SOURCE CONTROL EVALUATION \STAGE 1 SCE WP \APP A - STAGE 1 SCE FSP - DRAFT \DWG \FIGURE 3. DWG

APPENDIX A-1

Standard Operating Procedures

- SOP - 1: Methodology for Water Level Determination
- SOP - 2: Methodology for Groundwater Sampling
- SOP - 3: Decontamination Procedure
- SOP - 4: Field Measurement of Groundwater Parameters
- SOP - 12: Methodology for Soil Sampling
- SOP - 13: Waste Management Procedures
- SOP - 14: Methodology for Monitoring Well Development
- SOP - 22: Data Logger and Transducer Installation Procedures
- SOP - 23: Groundwater Sampling, Direct-Push Method
- SOP - 24: Discrete Groundwater Sampling During Drilling



**RP - PORTLAND SITE
SOP - 1
METHODOLOGY FOR WATER LEVEL DETERMINATION**

1.0 PURPOSE

Depth to water measurements are used to compute groundwater elevations. Water levels may be collected manually with an electronic water level probe or automatically with a pressure transducer and associated datalogger. This standard operating procedure (SOP) is specific to manual water level determination. Manual water level readings are the most common type of water level determination. Generally, this method is used if continuous water level data are not required, and at wells where non-aqueous phase liquid (NAPL) is suspected or present.

2.0 EQUIPMENT LIST

- 1) Photo-ionization detector (PID) for environmental sites
- 2) Well lock keys
- 3) Blank Water Level and NAPL Thickness Measurement Form, other site-specific form, and/or field logbook with indelible pens
- 4) Electronic water level probe
- 5) If NAPL is expected, interface probe and check-valve Teflon bailer with new cord
- 6) Knife or scissors
- 7) Decontamination equipment (see SOP - 3 Decontamination Procedure and sampling plan for additional site-specific requirements)
- 8) Site map and site health and safety plan (HASP)
- 9) PPE appropriate for site (see HASP if applicable)

3.0 PROCEDURE

Depth to groundwater and total well depth measurements will be made with an electronic well sounding (water level) probe. This probe is capable of measuring the depth from the top of the well casing to the nearest 0.01 foot.

- 1) Measurements are taken from cleanest to most heavily impacted wells, based on historic data where available.
- 2) Check well for security damage or evidence of tampering and record pertinent observations. Note any maintenance tasks that should be completed, such as well cap or padlock replacement.



- 3) Unlock and remove the cap from the well casing, allowing the pressure to equalize in well.
- 4) At sites with suspected environmental contamination, after removing the well cap immediately measure the air space in the well bore for the presence of volatile organic compound (VOC) vapors using a PID. The PID reading will aid in the determination of the appropriate level of personal protective equipment (PPE) at each well.
- 5) For wells where NAPL is not suspected, the water level probe sensor head is lowered into the well opening until an auditory or visual signal is obtained. The sensor is slightly raised and lowered to determine the strongest signal, indicating the top of the water level surface in the well casing. For wells where NAPL is suspected, use an interface probe and follow probe instructions to determine the type of signal for water versus product.
- 6) The measurement is read off the tape at the point that corresponds to the survey mark on top of the well casing and recorded on the Water Level and NAPL Thickness Measurement Form, other site-specific form, or the field logbook to nearest the 0.01 foot. The depth to fluid is measured from an established point on the well casing and is later subtracted from the elevation of that mark to calculate groundwater (or product) elevation at the well location. Record both depth to NAPL and depth to water, where applicable.
- 7) Measure a total depth of the well to the nearest 0.1-foot. If the well is deeper than 100 feet (the typical length of water level probes), a weighted tape may be used to determine total well depth. If free-phase product is suspected, use the interface probe to check for the possible presence of dense NAPL (DNAPL) near the well bottom.
- 8) Decontaminate the exposed tape and water level or interface probe sensor head prior to rolling it onto the equipment reel.
- 9) For wells with known NAPL or where evidence of NAPL is observed on the water level probe, a disposable, weighted bailer will be used to determine whether NAPL is present. If present, visually examine the NAPL for color, background odor, evidence of NAPL product sheen or droplets, etc. Record these observations and a NAPL thickness corresponding to the thickness observed in the bailer on the Water Level and NAPL Thickness Measurement Form, other site-specific form, or field logbook.
- 10) Contain and dispose of PPE, bailer and cord (if used), and decontamination water according to site-specific requirements.

**RP - PORTLAND SITE
SOP - 2
METHODOLOGY FOR GROUNDWATER SAMPLING**

1.0 PURPOSE

Groundwater samples are collected from monitoring wells for analysis of physical and chemical parameters, either using field observations and portable equipment or using off-Site laboratory analytical methods. Monitoring wells are purged or micro-purged prior to sample collection to ensure that water sampled is representative of the formation. The procedures in this standard operating procedure (SOP) are specific to standard monitoring wells with a single slotted interval. This method can be used when using bailers, dedicated pumps, or portable pumps.

2.0 EQUIPMENT LIST

- 1) Well lock keys
- 2) Groundwater Sampling Field Form, other appropriate Site-specific form(s), and field logbook with indelible pens
- 3) Electronic water level probe or interface probe
- 4) If dense non-aqueous phase liquid (DNAPL) is potentially present, interface probe and check-valve Teflon® bailer with new cord
- 5) Knife or scissors
- 6) Decontamination equipment (see RP SOP - 3 Decontamination Procedure, and sampling plan for additional Site-specific requirements)
- 7) Site map and Site health and safety plan (HASP), if applicable
- 8) PPE appropriate for Site (see HASP if applicable)
- 9) Submersible pump or bailer (for monitoring wells without dedicated pumps), and associated pump equipment (controller, connectors, power cord, etc.)
- 10) Compressed gas source or generator, air compressor, and fuel (if dual valve pump is used)
- 11) Disposable discharge tubing, if necessary
- 12) Field water quality monitoring equipment (see RP SOP - 4 Field Measurement of Groundwater Parameters) and flow-through cell, if appropriate
- 13) Buckets or other containers for purged water
- 14) Sample containers, labels, packaging material

3.0 PROCEDURE

Groundwater samples can be collected using low-flow purging and sampling or standard purging and sampling methods. Low-flow purging and sampling is the preferred sampling method, however both are presented here. Standard purging and sampling methods may be used at wells that are not amenable to low-flow purging, such as wells with short water columns and slow recharge.

Low-Flow Purging and Sampling

This SOP emphasizes the need to minimize stress by inducing low water level drawdowns and low pumping rates in order to collect samples with minimal alterations to water chemistry. While purging and sampling, accurate measurement of physical groundwater quality parameters in the field requires a closed system in which groundwater does not come in contact with air. Dissolved oxygen (DO), oxidation-reduction potential (ORP), and pH measurements in groundwater are sensitive to reactions with the atmosphere. The flow-through cell (flow cell) is used to measure field parameters when collecting groundwater water samples from a submersible or peristaltic pump. Stabilization of indicator field parameters is used to indicate that conditions are suitable for sampling to begin. A drawdown of less than 0.3 foot is desirable.

The following sequential steps are to be completed during groundwater sampling from monitoring wells:

- 1) Check well for security damage or evidence of tampering and record pertinent observations. Note any maintenance tasks that should be completed, such as well cap or padlock replacement.
- 2) Lay out a sheet of clean plastic sheeting (visqueen) around the well monument for monitoring and sampling equipment.
- 3) After removing the well cap, immediately measure the air space in the well bore for the presence of volatile organic compound (VOC) vapors using a photoionization detector.
- 4) Measure the depth to water and well total depth using an electronic water level indicator. All measurements should be referenced to a marked point on the well casing.
- 5) Using a safety cable, to minimize disturbance, slowly lower the pump (or intake of the disposable tubing if using a peristaltic pump) into the well to the midpoint of the zone to be sampled. Keep the pump at least 2 feet from the bottom of the well to minimize the mobilization of silt that may be present in the sump at the bottom of the well.
- 6) Start the pump at the lowest speed setting and slowly increase the speed until discharge occurs. Check the discharge rate. Pump rate should be reduced to the

minimum capability of the pump, which should be between 0.1 and 0.4 liters per minute (l/min). Do not allow the water level to fall below the pump intake or the pump may overheat.

- 7) During well purging, monitor the field parameters every three to five minutes. Purging is considered complete and sampling may begin when the field parameters have stabilized for three consecutive readings (taken at three to five minute intervals). These readings should be within the following limits:

Temperature:	3%
Conductance:	3%
pH:	+/- 0.1 pH units
DO	10% (or measurement <1 milligram per liter (mg/L)
ORP	+/- 10 millivolts

- 8) If after 30 minutes of purging indicator parameters have not stabilized, purging will be discontinued, and sample collection will proceed.
- 9) The water sample must be collected before the water passes through the flow cell. Disconnect the influent tubing from the flow cell and directly fill the sample containers. Turbidity of the sample water will be measured using field instruments prior to sample collection and upon obvious visual changes in turbidity during sample collection. Groundwater samples for dissolved metals analysis will be field-filtered with a 0.45-micron filter by placing the filter directly on the end of the discharge hose from the submersible or peristaltic pump. Alternatively, water will initially be collected in a poly bottle and then filtered using a peristaltic pump into the bottles that contain preservative. If multiple analytical tests are to be performed, collect samples in order of decreasing sensitivity to handling-introduced bias (i.e., VOCs, semivolatiles, and metals). Water should be directed down the inside walls of the bottles to minimize aeration.
- 10) All the sample bottles will be properly labeled, protected from breakage, placed in storage bags, and placed in a cooler on ice and packed for transport to the laboratory. Samples will be shipped to the laboratory within 48 hours of collection.
- 11) Discard the dedicated tubing as Investigation Derived Waste (IDW) after sampling.
- 12) Before securing the well, measure and record the water level.
- 13) Decontamination of sampling equipment is addressed in SOP - 3 Decontamination Procedure.
- 14) All field observations made, and data generated in conjunction with the sample collection, will be entered on a well-specific Groundwater Sampling Field Form (see Appendix B), dated, and signed by the field personnel.
- 15) Complete the chain-of-custody documentation after samples are collected, and before moving to the next well.

Standard Purge and Sampling Methods

The composition of water within the well casing and in close proximity to the well may not be entirely representative of the overall groundwater quality at the site. This is due to differing permeabilities, temperatures, and pressures between the area adjacent to the well (filter pack) and the surrounding aquifer. For these reasons, it is necessary that a well be evacuated of standing water before sampling. Purging the well clears the stagnant water from the well and allows the well to be recharged with true formation water. The following are the procedures followed for purging a well using standard (not low-flow) methods:

- 1) Note general conditions of the well. Check for security damage and evidence of tampering, and record pertinent observations. Note any maintenance tasks that should be completed, such as well cap or padlock replacement.
- 2) Lay out a sheet of clean plastic sheeting (visqueen) around the well monument for monitoring and sampling equipment.
- 3) After removing the well cap, immediately measure the air space in the well bore for the presence of VOC vapors using a photoionization detector.
- 4) Measure the depth to water and well total depth using an electronic water level indicator. All measurements should be referenced to a marked point on the well casing.
- 5) Using information on the total depth (TD) of the well, the diameter of the well casing, and the depth to water (DTW), the amount of water in one casing volume is calculated. The information below is used to determine the well volume fraction (WVF) in gallons per linear foot for the appropriate casing diameter.

2-inch casing:	0.163 gal/foot
4-inch casing:	0.653 gal/foot
6-inch casing:	1.5 gal/foot

The minimum purge volume = $(TD-DTW) \times WVF \times 3$ (no. of casing volumes).

- 6) An amount of water equivalent to three casing volumes is purged from the well with a clean bailer or a pump. The amount purged depends on the recharge rate in the well. If a well is bailed dry before the required purge volume has been removed, the well is allowed to recover and then bailed dry again. It can be assumed that water returning to the well after the second bailing is true formation water, and no further purging is necessary.
- 7) Monitor physical parameters (temperature, pH, and specific conductance) during purging (after removal of each sequential casing volume) with a pump, or once following purging for bailed wells.
- 8) Turbidity of the sample water will be measured using field instruments prior to sample collection and upon obvious visual changes in turbidity during sample collection. Groundwater samples for dissolved metals analysis will be field-filtered

with a 0.45-micron filter. Water will initially be collected in a poly bottle, and then it will be filtered using a peristaltic pump into the bottles that contain preservative. Alternatively, the filter may be placed directly on the end of the discharge hose from the submersible pump, if used. If the well is purged dry, a sample will be collected as soon as adequate water has returned to the well to make sampling feasible. If multiple analytical tests are to be performed, collect samples in order of decreasing sensitivity to handling-introduced bias (i.e., VOCs, semivolatiles, and metals). A low-turbulence discharge device will be used to elute VOC samples from bailer into sample container. Water should be directed down the inside walls of the bottles to minimize aeration.

- 9) All the sample bottles will be properly labeled, protected from breakage, placed in storage bags, and placed in a cooler on ice and packed for transport to the laboratory. Samples will be shipped to the laboratory within 48 hours of collection.
- 10) Discard the dedicated tubing as IDW after sampling.
- 11) Before securing the well, measure and record the water level.
- 12) Decontamination of sampling equipment is addressed in SOP - 3 Decontamination Procedure.
- 13) All field observations made and data generated in conjunction with the sample collection will be entered on a well-specific Groundwater Sampling Field Form, dated, and signed by the field personnel.
- 14) Complete the chain-of-custody documentation after samples are collected, and before moving to the next well.

Well purge water will be stored in an appropriately labeled poly tank and transported from the generation point to the RP wastewater treatment system for discharge in accordance with the NPDES permit dated September 15, 2003. This will occur on the day of generation. The quantity of water discharged to the RP wastewater treatment system will be recorded on the 90-Day Investigation Derived Waste Log.

**RP - PORTLAND SITE
SOP - 3
DECONTAMINATION PROCEDURE**

1.0 PURPOSE

Decontamination of non-disposable equipment is performed at sites where environmental contamination is known or suspected. This is done to minimize the potential for cross-contamination between sampling locations (potentially resulting in unrepresentative samples and/or causing the spread of contamination) and also to protect human health and safety.

2.0 EQUIPMENT LIST

- 1) Deionized water
- 2) Plastic buckets
- 3) Spray bottles
- 4) Disposable rags or paper towels
- 5) Alconox, methanol, hexane
- 6) Potable water (can be replaced by deionized water)
- 7) Site map and site health and safety plan (HASP)
- 8) PPE appropriate for site (see HASP if applicable)

3.0 PROCEDURE

Sampling equipment (e.g., water samplers, flow cells, pumps, water level meter, etc.) will be decontaminated as follows:

- 1) Soap wash (dilute solution of Alconox or equivalent in potable water solution);
- 2) Potable water rinse;
- 3) Solvent rinse (methanol, hexane, or similar); and
- 4) Distilled/deionized water rinse.

If non-aqueous-phase liquid (NAPL) is encountered, probes and sounding tape will be wiped with a solvent-soaked towel during retrieval, and the equipment will be decontaminated with a solvent rinse as described above. For locations with NAPL or suspected NAPL, the sampling equipment used will be washed with hexane prior to the soap wash.



Decontamination fluids will be stored in an appropriately labeled tank and transported from the generation point to the RP wastewater treatment system for discharge in accordance with the NPDES permit dated September 15, 2003. This will occur on the day of generation. All decontamination fluids will be discharged to the RP wastewater treatment system because both hazardous and non-hazardous waste can be disposed of in the RP wastewater treatment system. The quantity of water discharged to the RP wastewater treatment system will be recorded on the 90-Day Investigation Derived Waste Log.

RP - PORTLAND SITE

SOP - 4

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS

1.0 PURPOSE

Measurements of pH, oxidation-reduction potential (ORP), air and water temperature, conductivity, turbidity, ferrous iron, and dissolved oxygen concentrations will be obtained with calibrated instruments at all sample sites prior to sample collection.

2.0 EQUIPMENT LIST

- 1) Portable, battery-powered multiprobe equipment (e.g., YSI 650 MDS or YSI 610) with calibration solutions and instructions
- 2) Ferrous iron field test kit, stocked with reagents
- 3) Turbidity meter
- 4) Appropriate field forms for recording readings and/or field logbook with indelible pens
- 5) Knife or scissors
- 6) Decontamination equipment (see SOP - 3 Decontamination Procedure and sampling plan for additional site-specific requirements)
- 7) Site map and site health and safety plan (HASP), if applicable
- 8) PPE appropriate for site (see HASP if applicable)

3.0 PROCEDURE

Procedures for collection of specific field parameters are provided in the sections below.

Temperature, pH, Specific Conductance, DO, and ORP

Field measurements for temperature, pH, specific conductance, dissolved oxygen (DO), and ORP will be measured with portable, battery-powered instruments (e.g., YSI 650 MDS or YSI 610 D multiprobes). Procedures for calibration and measurements are outlined in the user manuals included with these instruments. At a minimum, these instruments will be calibrated once each day before sampling activities begin.

Turbidity

Turbidity will be measured once per well immediately prior to filling sample bottles, and upon obvious visual changes in turbidity during sample collection. Turbidity will be measured using appropriate portable, battery-powered field equipment and results will

be recorded in nephelometric turbidity units (NTU). Dilution of the sample may be required for water with high turbidity.

Ferrous Iron (Fe²⁺)

Field measurement of ferrous iron (Fe²⁺) will be conducted using a colorimetric technique, and will be completed during post-development groundwater sample collection as outlined in this FSP.

Summary of procedures for Fe²⁺ measurement:

- Wash all lab ware between tests with a non-abrasive detergent or solvent. Do not use paper towels on the plastic tubes, as this may scratch them.
- Rinse all tubes thoroughly with the sample water prior to testing.
- Fill a viewing tube to the first 5-ml line to be used as a blank.
- Place the blank tube in the top left opening of the color comparator.
- Fill the measuring vial to the 25-ml mark with the sample water.
- Use the supplied clippers to open the powder pillow.
- Add the contents of the powder pillow to the measuring vial.
- Swirl to mix and allow 3 minutes for full color development. An orange color will develop if Fe²⁺ is present.
- Fill a second viewing tube with the prepared sample from the measuring vial to the first 5-ml mark.
- Place the second tube in the top right opening of the color comparator.
- Hold the comparator up to a light source and rotate the color disk until the color matches in the two openings.
- Read the mg/L Fe²⁺ result in the scale window.
- Place the tested water into the container of investigation derived waste (IDW) and rinse the viewing tubes and the measuring vial with clean (deionized) water.

**RP - PORTLAND SITE
SOP - 12
SOIL SAMPLING METHODOLOGY**

1.0 PURPOSE

This procedure describes the general instructions for sampling of soils for various analyses in support of investigative activities at the RP site. Samples will be collected in accordance with the applicable field sampling plans (FSPs).

2.0 EQUIPMENT LIST

- 1) Shovel and stainless steel spoons or trowels
- 2) Soil sampling equipment: direct-push rig or stainless steel hand auger assembly
- 3) Appropriate field sampling form, field logbook, soil boring log sheets, sample identification matrix log sheets, and indelible pens
- 4) Camera and film
- 5) Photoionization detector (PID)
- 6) Hand held GPS unit
- 7) Survey stakes and ribbon
- 8) Sample containers, labels, coolers, and ice
- 9) Resealable 1-2 gallon and smaller (sandwich-size) plastic bags
- 10) Ultraviolet (UV) light and appropriate power supply
- 11) Hydrophobic dye test kit (Oil-in-Soil™)
- 12) Decontamination equipment (see SOP - 3 Decontamination Procedure and sampling plan for additional site-specific requirements)
- 13) Site map and site health and safety plan (HASP)
- 14) PPE appropriate for site (see HASP)

3.0 PROCEDURES

Surface Soil Sample Collection

- 1) Obtain sampling supplies and equipment and ensure appropriate sample containers are prepared and ready for sample collection.
- 2) Mobilize sampling equipment to appropriate sampling location.
- 3) Label the outer surface of a 1-2 gallon, double-bagged plastic bag with the boring identification (ID), sample interval, date, and time.

- 4) Use shovel, stainless steel hand auger, or direct-push core methods to obtain surface soil samples (0-1 foot below ground surface [bgs]). Then place representative soil into a 1-2 gallon, double-bagged plastic bag. Fill additional plastic bags for adequate sample volume as needed.
- 5) Transfer the bagged surface soil samples to the designated sample processing area. Disposable surfaces (e.g., plastic sheeting and/or aluminum foil) will be used to prevent cross contamination when handling soil samples.

NOTE: For locations where volatile organic compound analyses are being performed, transfer the soil sample directly into the appropriate sample container(s), then proceed with the following procedure, for the sampling of other analytes.

- 6) Transfer a representative portion of the soil into a double-bagged sandwich-sized plastic bag, enclosing air while sealing, for organic vapor and NAPL screening.
- 7) Mix the contents of the sandwich-sized bag well and allow equilibration to ambient temperature.
- 8) Insert PID into an opened corner of the sandwich-sized bag. Record vapor concentrations into the field logbook and reseal bags.
- 9) Inspect contents of the sandwich-sized bag for NAPL presence both visually and using an ultraviolet (UV) light. Record all observations on soil boring log sheets and in the appropriate field logbook.

NOTE 1: Squeezing any fluids present against the wall of the bag and holding the UV lamp nearby may refine this process. The addition of approximately 10 milliliter (mL) of DI water may also increase the ability to detect the NAPL residual fluorescence.

NOTE 2: The visible fluorescence emitted from chlorobenzene, a primary constituent of NAPL residual, is expected to appear milky white in color.

NOTE 3: When the visual and UV light screening results are inconclusive and NAPL residual is expected to be present, perform the hydrophobic-dye shake test using the procedure outlined in Section 5.0 below.

- 10) Transfer the remainder of the soil into the appropriate pre-cleaned and certified soil sample containers provided by the contract laboratory.
- 11) Record sample date, time, and sampler name on sample label and record in the field logbook and on the sample identification matrix log sheets.
- 12) Record samples on chain-of-custody forms and place in coolers.

- 13) Coordinate transportation to appropriate analytical laboratory(ies).

Subsurface Soil Sample Collection

- 1) Obtain sampling supplies and equipment and ensure appropriate sample containers are prepared and ready for sample collection.
- 2) Mobilize sampling equipment to appropriate sampling location.
- 3) Subsurface soil samples will be collected using the direct-push method or a hand auger.

NOTE: More than one boring may be necessary at each sampling location to obtain sufficient sample volume for all required analyses.

- 4) The first boring will be cored continuously from ground surface to total depth.
- 5) Log lithologic characteristics and screen for the presence of NAPL residual with this first continuous core. Record all observations on soil boring log sheets and in the appropriate field logbook.

NOTE 1: If NAPL residual is encountered the soil boring will be advanced until NAPL residual is no longer determined to be present.

NOTE 2: The on-site geologist will log the soils in accordance with the American Society for Testing and Materials (ASTM) method D 2488-90, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).

- 6) Transfer the soil samples to the designated sample processing area. Disposable surfaces (e.g. plastic sheeting and/or aluminum foil) will be used to prevent cross contamination when handling soil samples.

NOTE: For locations where volatile organic compound analyses are being performed, transfer the soil sample directly into the appropriate sample container(s), then procedure with the following procedure, for the sampling of other analytes.

- 7) Transfer a representative portion of the soil into a double-bagged sandwich-sized plastic bag, enclosing air while sealing, for organic vapor and NAPL screening.
- 8) Mix the contents of the sandwich-sized bag well and allow equilibration to ambient temperature.
- 9) Insert PID into an opened corner of the sandwich-sized bag. Record vapor concentrations into the field logbook and reseal bags.

- 10) Inspect contents of the sandwich-sized bag for NAPL presence both visually and using a UV light. Record all observations on soil boring log sheets and in the appropriate field logbook.
- 11) Subsequent borings are then advanced to the specified depth using direct-push core sampling or stainless steel hand auger systems.
- 12) If direct-push polycarbonate core liners are used: cap both ends of the liner, label, and transfer to the sample processing area. Again, disposable surfaces (e.g., plastic sheeting and/or aluminum foil) will be used to prevent cross contamination when handling soil samples.

NOTE: Soil samples collected from different boreholes but at the same depth interval will be composited prior to transferring to individual sample containers. The soil samples will be placed into a double-bagged two-gallon plastic bag, sealed, and well mixed creating one representative sample.

- 13) Transfer the representative soil into the appropriate pre-cleaned and certified containers provided by the contract laboratory.
- 14) Record sample date, time, and sampler name on sample label and record in field logbook and on the sample identification matrix log sheets.
- 15) Coordinate transportation to appropriate analytical laboratory(ies).
- 16) Mark the top of the borehole with a labelled wooden lathe and flagging in order to facilitate surveying activities, or use hand-held GPS equipment to record the location of the sample.

4.0 HYDROPHOBIC-DYE SHAKE TEST (Oil-in-Soil™)

- 1) Transfer to test vial and fill to mark on test vial and break soil up if clayey;
- 2) Label the test vial with the boring ID, sample interval, date, and time;
- 3) Add water to mark on test vial;
- 4) Shake the contents of the tube for 10 to 30 seconds; and
- 5) Examine the tube for the presence of NAPL residual and record the results in the field logbook.

NOTE: The Sudan IV is expected to dye organic fluids or NAPL residual red upon contact. The bead will turn red or pink if hydrocarbons are present.



RP - PORTLAND SITE

SOP - 13

INVESTIGATION-DERIVED WASTE MANAGEMENT PROCEDURES

1.0 PURPOSE

To promote proper and consistent handling, storage, and disposal of waste generated during field investigations, and to prevent or minimize the potential for the spread of contamination, creation of sanitary hazards, or visual degradation of the RP site through the spread of litter.

2.0 EQUIPMENT LIST

- 1) Site-specific Health and Safety Plan (HASP), including site map
- 2) Personal Protective Equipment (PPE) appropriate for the tasks to be performed, and material to which contact will occur (see HASP)
- 3) 90-Day Investigation-Derived Waste Log form (attached)
- 4) Daily Water Disposal Log form (attached)
- 5) Field notebook
- 6) Waste labels
- 7) Indelible ink pens
- 8) Heavy duty plastic sacks
- 9) Plastic film bags
- 10) Portable water storage tank
- 11) Department of Transportation (DOT)-approved, removable head, 55-gallon steel drums
- 12) Drum liners
- 13) On-site, chemical-resistant container with secondary containment (e.g., 30-gallon, Teflon®-bonded, hard-top steel drum with volumetric gauge contained with secondary containment and cover, and large dedicated funnel), capable of storing non-aqueous phase liquid (NAPL)
- 14) A portable, chemical-resistant container with secondary containment (e.g., 3-gallon Teflon®-bonded steel container within a 5-gallon bucket), capable of storing NAPL
- 15) Manifest forms appropriate for oversight of waste transport

3.0 PROCEDURES

Wastes generated during field investigations may include decontamination fluid, purged groundwater, PPE, soil, disposable sampling equipment, NAPL, and/or other hazardous and non-hazardous wastes. Generated waste, other than decontamination fluid and purge water, will be sorted by media type, boring or excavation location, investigation area, and/or investigation event, then packaged in drums and stored in the RP waste storage facility (WSF). A temporary label will be affixed to each container of waste (see Section 3.7). If any field tests are run and/or free water is removed, a description of the tasks performed will be recorded in a field logbook to aid in the safe packaging, handling, and storage of wastes.

3.1 Decontamination Fluid and Purge Water

Decontamination fluid and purge water generated during decontamination or sampling activities will be contained in 5-gallon buckets that are placed on a plastic liner and transferred to an appropriately labeled portable tank located in the back of a field truck for transport to the RP wastewater treatment plant (WTP). Decontamination fluids and purge water, hazardous and non-hazardous, will be transported from the generation point to the RP WTP for discharge in accordance with the NPDES permit renewal granted to RP on September 15, 2003. This will occur on the day of generation. The quantity of water discharged to the WTP will be recorded on the Daily Water Disposal Log.

3.2 Personal Protective Equipment

All disposable health and safety PPE (Tyvek® suits, Nitrile gloves, etc.) will be collected and stored in heavy-duty, plastic sacks and transported to the WSF on the same day it was generated. The sacks with discarded PPE will be placed in DOT-approved UN-1A2 removable head steel drums, lined with plastic film bags, for storage. The quantity and origin of PPE placed in the WSF will be recorded daily on the 90-Day Investigation-Derived Waste Log. Following waste characterization, the PPE will be transported to an off-site treatment, storage, and disposal facility (TSDF) for treatment, as necessary, and for final disposition of the waste according to applicable state and federal laws.

3.3 Soil Cuttings and Core Liners

Soil cuttings and associated disposable sampling equipment (e.g., core liners) generated during sampling activities will be packaged in DOT-approved UN-1A2 removable head steel drums, lined with plastic film bags. Soil generated from boring operations typically contains free water at the time of generation. Immediately following initial placement of the soil cuttings and/or core liners in drums, free water

often ponds on top of the waste material. The free water will be removed and disposed of, at the WTP. Drums containing soil cuttings and core liners will be transported from the generation point to the WSF during the day of generation. The approximate percentages of soil versus debris, and types of debris material in each drum receiving waste, will be recorded, on a daily basis, as field notes for each container. The quantity (estimated weight and percent of drum capacity remaining) of soil cuttings and core liners placed in the WSF will be recorded daily on the 90-Day Investigation-Derived Waste Log.

Free water may separate from the soil cuttings upon standing in drum during storage. Prior to shipping the investigation-derived waste off-site for treatment and/or disposal, free water will be removed and transferred to the WTP, and /or an appropriate absorbent material (e.g., vermiculite) will be added. Following waste characterization, the soil cuttings and core liners will be transported to an off-site TSDF for treatment, as necessary, and for final disposition of the waste according to applicable state and federal laws.

3.4 NAPL and NAPL/Fluid Mixtures

NAPL and NAPL/fluid mixtures generated during field activities will be placed in a portable, chemical-resistant container within secondary containment for transport from the area of generation to the WSF. Inside the WSF, the contents of the portable container will be transferred to a stationary 55-gallon chemical-resistant container with secondary containment using a dedicated, industrial-sized funnel with a flip-top reclosable lid. Transport of NAPL and/or NAPL/fluid mixture to the WSF will occur on the day of generation. The quantity of NAPL and NAPL/fluid mixture placed in the WSF will be recorded daily on the 90-Day Investigation-Derived Waste Log.

3.5 Disposable Sampling Equipment

Disposable sampling equipment (disposable bailers, plastic tubing, etc.) to which little or no soil is adhered, will be collected and placed in plastic film bags and transported to the WSF on the day of generation. The bags will be placed in DOT approved UN 1A2 removable head steel drums. The quantity of disposable sampling equipment placed in the WSF will be recorded daily on the 90-Day Investigation-Derived Waste Log. Following waste characterization, the disposable sampling equipment will be transported to an off-site TSDF for treatment, as necessary, and for final disposition of the waste according to applicable state and federal laws.

3.6 Miscellaneous Solid Wastes

Non-hazardous wastes that may be generated during field activities include paper, food containers and wrapping, aluminum cans, bottles, plastic bags, and other

miscellaneous debris. This material will be contained in heavy duty plastic sacks for daily disposal in approved sanitary waste receptacles.

3.7 Temporary Container Labeling

Immediately upon placement of waste in a drum, a temporary label with the language, "This container on hold pending analysis. Do not tamper with container. Authorized personnel only," will be applied. Information that will be added to the temporary label will include:

- 1) The accumulation start date;
- 2) The event name;
- 3) Waste origin (i.e., boring or excavation location, investigation area, etc.);
- 4) Media type (e.g., PPE and debris, soil, etc.); and
- 5) A unique identification (ID) number. **NOTE*** the unique ID number should be obtained from the Task Leader, who is responsible for maintaining the waste management records, including an inventory of the hazardous wastes stored in the WSF.

3.8 Waste Characterization

Wastes are characterized in accordance with the RP Waste Analysis Plan. Collection of additional samples for use in waste characterization depends on the availability of analytical results. If samples appropriate to characterize the waste stream were collected during investigation activities, then additional samples of the waste will not be collected. If no samples, or insufficient samples, were collected during investigation activities, then a representative sample will be collected from the drum(s) of the affected waste stream. Efforts should be made to schedule sample collection activities to occur at the time the waste is placed in the WSF, before field investigation activities are completed.

3.9 Record-Keeping and Labeling

Upon transfer of waste to the hazardous waste storage area within the WSF, a 90-Day Investigation-Derived Waste Log will be initiated. At the end of each day, for each drum receiving waste that day, a record that includes the area/location of waste, type of waste, amount of waste added, and the remaining capacity in each drum will be entered into the log. An adhesive, temporary label completed using an indelible marker, as described in Section 3.7, will be affixed to the upper 1/3 side of the container, such that the label can be read without moving the container.



If, using analytical results and process knowledge, a waste is characterized as hazardous, then a hazardous waste label will be applied to the packaging in which the waste is contained. The temporary label will be removed or covered. If it is not possible to remove the temporary label, it will be rendered illegible with spray paint. SOP - 21 provides further instruction.

90-DAY INVESTIGATION-DERIVED WASTE LOG
RP - Portland Site

Container Number	Accum. Start Date	Area/location(s)		Types of Waste ¹	Field Event	Samples Collected from Waste? (Yes or No)	% Volume by Waste Type	Remaining Capacity of Container (%) ²
<i>Example: 204</i>	<i>4/22/2002</i>	<i>NRA</i>	<i>RP-07-S</i>	<i>drill cuttings</i>	<i>Spring 2005 GW</i>	<i>N</i>	<i>20% soil, 80% PPE and/or debris</i>	<i>50%</i>

Notes:

LA = Lake Area

IA = Insecticide Area

HA = Herbicide Area

NRA = Non-RP – Portland Site Area

¹ Waste types fall into the following three categories: soil (silt, sand, gravel, etc), PPE (gloves, tyvek suits, respirator filters), and debris (wood, paper, plastic, broken sample bottles)

²

SCOEP A00031594

DAILY WATER DISPOSAL LOG
RI/FS
RP - Portland Site

Date	Area/Location(s)		Type of Waste	Activity Description	Volume Generated/Transferred* (Give Units of Measure)
<i>Example: 4/22/2002</i>	<i>LA</i>	<i>RP-04-16</i>	<i>Purge Water</i>	<i>Fall 2001 GW</i>	<i>15 gallons</i>

Notes:

LA = Lake Area
IA = Insecticide Area
HA = Herbicide Area
NRA = Non-RP – Portland Site Area

**RP - PORTLAND SITE
SOP - 14
METHODOLOGY FOR MONITORING WELL DEVELOPMENT**

1.0 PURPOSE

Monitoring wells are constructed in a manner to minimize infiltration of silt or other particles from entering the well, and to minimize the creation of subsurface conduits to groundwater. Monitoring wells are developed following installation to flush out particles that may remain after installation and to ensure that the well is in communication with the surrounding formation.

2.0 EQUIPMENT LIST

- 1) Photo-ionization detector (PID)
- 2) Blank Well Development Log form, other site-specific form (as appropriate), and field logbook with indelible pens
- 3) Electronic water level probe
- 4) Well construction details
- 5) Surge block
- 6) Submersible pump, pump controller, and power source (e.g., generator)
- 7) Portable turbidity meter and power source (e.g., charged batteries)
- 8) Containers for containing purged well development water
- 9) Site map and site health and safety plan (HASP), if applicable
- 10) PPE appropriate for site (see HASP if applicable)

3.0 PROCEDURE

Well development should accomplish the following objectives: 1) removal of fine materials from the well (both the filter pack and the casing); 2) removal of smeared formation mud on the sides of the bore hole from drilling augers; 3) removal of drilling fluids or surface contamination that may have been introduced during drilling; and 4) removal of water introduced into the boring to aid in drilling, cuttings removal, or monitoring well installation.

- 1) Surge the well vigorously with a surge block over the entire length of the well screen. The purpose of the surging is to: 1) break up accumulations of fine materials in the bottom of well casing, and 2) force water back and forth to settle the sand pack.



- 2) Place a submersible pump or other appropriate pump in the well, near the bottom of the well. The well should be pumped aggressively until well is pumped dry or until discharge is clear. The drawdown of the groundwater and an approximate average pumping rate are noted during and at the completion of the development. Repeat steps 1 and 2 about 3 times or until no further improvement in water clarity is visible.

A well volume is calculated by adding the volume of water in the casing to the volume of water in the filter pack. Filter pack volume is calculated by multiplying the volume of the annulus between the casing and the borehole by (0.3). This value (0.3) allows for the space occupied by the sand (8-12 and 10-20 grain sizes) in the annulus. A minimum of five well volumes of water should be removed from the well. If water was added to the well during installation, that amount of water should be removed from the well in addition to the five well volumes.

- 3) The most obvious indication of well development is the clarity of the discharge water. Ideally, the groundwater turbidity should be reduced to 5 nephelometric turbidity units (NTUs) upon completion of development.
- 4) Monitoring well development activities should be recorded on the Well Development Log and the field logbook. Information recorded should include methods used, volume of water removed, and turbidity readings.
- 5) Purge water will be stored in an appropriately labeled tank and transported from the generation point to the RP wastewater treatment system for discharge in accordance with the NPDES permit modification granted to RP on September 15, 2003. This will occur on the day of generation. All purge water will be discharged to the RP wastewater treatment system because both hazardous and non-hazardous waste can be disposed of in the RP wastewater treatment system. The quantity of water discharged to the RP wastewater treatment system will be recorded on the 90-Day Investigation Derived Waste Log.

RP - PORTLAND SITE

SOP - 22

DATA LOGGER AND TRANSDUCER INSTALLATION PROCEDURES

1.0 PURPOSE

To collect water pressure data from monitoring well locations that can be used to compute groundwater elevations. Water levels may be collected manually with an electronic water level probe or automatically with a pressure transducer and associated data logger. This standard operating procedure (SOP) is specific to pressure transducers and associated data logger. Generally, this method is used if continuous water level data is required, and at wells where non-aqueous phase liquid (NAPL) is suspected or present.

2.0 EQUIPMENT LIST

- 1) Photo-ionization detector (PID) for environmental sites
- 2) Well lock keys
- 3) Blank Data Logging Worksheet Form, other site-specific form, and/or field logbook with indelible pens
- 4) Electronic water level probe
- 5) Pressure transducer
- 6) Data logger with charged batteries
- 7) Laptop computer, software, and charged battery with accessories (i.e., disks, power inverter, etc.)
- 8) Duct tape and/or zip ties
- 9) Knife or scissors
- 10) Decontamination equipment (see SOP - 3 Decontamination Procedure and sampling plan for additional site-specific requirements)
- 11) Site map and site health and safety plan (HASP)
- 12) Personal protective equipment appropriate for site (see HASP if applicable)

3.0 PROCEDURE

Pressure transducers and data loggers should be installed based on manufacture's recommendations. Basic pressure transducer installation procedures are discussed below. Specific data logger programming requirements should follow manufacture's directions.



- 1) Record the pressure transducer and data logger serial number and well identification on the Data Logging Worksheet Form.
- 2) Measure the static water level to the nearest 0.01-foot using the electronic water level indicator before installing the pressure transducer following the Water Level Determination provided in SOP - 1.
- 3) Confirm that the pressure rating for the transducer is appropriate for the planned installation conditions. As a rule, the water column above the transducer (in feet) should not exceed two times the transducer pressure rating (in pounds per square inch [psi]) (e.g., a 30 psi transducer should not be installed in more than 60 feet of water). Consider the magnitude of the groundwater level fluctuations when evaluating the transducer installation depth.
- 4) Install the pressure transducer in the well.
- 5) Secure the pressure transducer cable to the outside of the well with duct tape or zip ties in a manner that will ensure the pressure transducer position in the well will not change. Note that the water level will rise in the well with insertion of the pressure transducers components. Allow the water level to return to static conditions, and confirm this using the electronic water level indicator.
- 6) Program the data logger to collect measurements at the appropriate intervals for the appropriate amount of time. Record the static water level, sensor reading, and time of the readings on the Data Logging Worksheet Form following start up of the data logging process.
- 7) Once the recording period has been completed, record the static water level, sensor reading, and time of the readings on the Data Logging Worksheet Form.
- 8) Download the sensor readings according to manufacture's instructions. Record the file name on the Data Logging Worksheet Form.
- 9) Once the data logger has successfully been downloaded, remove the pressure transducer and secure the well.

RP - Portland Site

SOP - 23

GROUNDWATER SAMPLING, DIRECT-PUSH METHOD

1.0 PURPOSE

Direct-push groundwater sampling methods are used to obtain one-time groundwater samples from very specific depths. Analytical data from direct-push groundwater samples are used to characterize groundwater quality at a point in time, and often are used to determine future monitoring well locations. A mobile direct-push rig is used to advance sampling equipment and retrieve samples.

2.0 EQUIPMENT LIST

- 1) Photo-ionization detector (PID)
- 2) Blank Boring Log Form, other site-specific form, and/or field logbook with indelible pens
- 3) Electronic water level probe
- 4) Decontamination equipment (SOP - 3, Decontamination Procedure, and sampling plan for additional Site-specific requirements)
- 5) Site map and Site health and safety plan (HASP), if applicable
- 6) Personal protective equipment (PPE) appropriate for Site (see HASP if applicable)
- 7) Sample containers, labels, packaging material

3.0 PROCEDURE

The direct-push groundwater sampling performed during the investigation is accomplished using a direct-push rig (e.g., Geoprobe®). The tool used for direct-push groundwater sampling is a 4-foot section of slotted stainless steel screen. The sampler is pushed/hammered to the desired sampling depth with a disposable point at the base of the rod. The screen is inside the steel drive rods and does not contact soil or groundwater while it is being driven. After the base of the desired sampling interval is reached, the drive rods are pulled back 4 feet. The screen is then pushed out below the base of the drive rods into the sampling interval. A groundwater sample is collected using a section of disposable polyethylene tubing equipped with a contained check ball assembly as described below.

Prior to sampling, the direct-push screen and rod "temporary well" may be developed using a peristaltic or vacuum pump in an effort to clear out some of the fine material in the screened interval. The amount of groundwater purged prior to sampling is dependent on aquifer and field conditions. When sampling for volatile organic



compounds (VOCs), the pump is disconnected and the sample is collected using a check ball as described below.

The following procedures are adhered to during direct-push groundwater sampling operations:

1. Attach a contained check ball assembly to the end of the polyethylene tubing. Slowly lower the tubing until it contacts the water surface. Slowly push the tubing into the water column, allowing it to fill with a minimum of surface disturbance.
2. Connect the tubing to the peristaltic pump and purge the desired amount of groundwater. To collect a VOC groundwater sample, disconnect the tubing from the pump and raise it to the surface. The tubing should not come into contact with the ground or other potentially contaminated area. The check ball assembly should keep the water in the tubing.
3. Carefully fill each VOC sample container, making an effort to minimize sample turbulence. Water should be directed down the inside walls of the bottles to minimize aeration. Repeat the sample retrieval procedure until a sufficient sample volume for VOC analysis is acquired.
4. After completing VOC sample collection, place the tubing back in the boring. Sufficient sample volume to fill all other sample containers is then pumped from the boring using a vacuum or peristaltic pump.
5. Handle samples according to procedures in the project specific Field Sampling Plan. All the sample bottles will be properly labeled, protected from breakage, placed in storage bags, and placed in a cooler on ice and packed for transport to the laboratory. Ship samples to the laboratory within 48 hours of collection.
6. Discard the disposable sample tubing after sampling.
7. Decontaminate sampling equipment as described in SOP - 3, Decontamination Procedures.
8. Complete field documentation according to procedures in the project specific Field Sampling Plan. All field observations made and data generated in conjunction with the sample collection will be entered on a Boring Log Form and field logbook, dated, and signed by the field personnel. Complete the chain-of-custody documentation after samples are collected, and before moving to the next location.

RP - Portland Site

SOP - 24

DISCRETE GROUNDWATER SAMPLING DURING DRILLING

1.0 PURPOSE

Discrete groundwater sampling methods are used to obtain one-time groundwater samples from a specific depth during drilling activities. Analytical data from these discrete groundwater samples are used to characterize groundwater quality at a point in time. A mobile hollow-stem auger, air rotary rig, or sonic rig is used to drill to the desired sampling depth.

2.0 EQUIPMENT LIST

- 1) Photo-ionization detector (PID)
- 2) Blank Boring Log Form, other site-specific form, and/or field logbook with indelible pens
- 3) Electronic water level probe
- 4) Knife or scissors
- 5) Decontamination equipment (SOP - 3, Decontamination Procedures, and sampling plan for additional Site-specific requirements)
- 6) Site map and Site health and safety plan (HASP)
- 7) Personal protective equipment appropriate for Site (see HASP if applicable)
- 8) Submersible pump, well point, and inflatable packer assembly, and associated pump equipment (controller, connectors, power cord, etc.)
- 9) Generator and fuel (if electric pump is used)
- 10) Air compressor or manual pump (for inflating packer)
- 11) Disposable discharge tubing
- 12) Buckets or other containers for purged water
- 13) Sample containers, labels, packaging material

3.0 PROCEDURE

Discrete groundwater samples are collected using a modified stainless steel well point, submersible pump, and inflatable packer assembly. The submersible pump and well point screen extend through the middle and beyond the base of the inflatable packer. The packer provides a watertight seal. This groundwater sample method allows groundwater to be drawn from the bottom of a selected interval, while sealing off water



from above, providing a discrete groundwater sample from the bottom of the auger or casing. The auger/casing is pulled up approximately 1 foot and the exposed portion of the boring is where a discrete groundwater sample is collected. In some cases, the auger/casing cannot be pulled up and the groundwater is sampled from the bottom of the open auger/casing.

1. At each selected groundwater sampling interval, lower the packer/pump/well assembly to the bottom of the boring through the center of the auger or casing. Place it in the exposed portion of the boring or just at the bottom of the auger/casing.
2. Once the assembly is at the bottom of the boring, inflate the packer inside the auger flight or casing to prevent water above the packer assembly from commingling with water below the packer assembly.
3. Purge the water from the bottom of the boring below the inflatable packer assembly using the submersible pump situated inside the stainless steel well point at the base of the packer assembly. As the pump is purging, lower a water level probe to measure the depth of the water above the packer, to make sure that there is a seal and that the water from above is not being drawn down by the pump.

Calculate the purge amount using the distance between the bottom of the packer and the bottom of the boring and the diameter of the boring. This should be a minimal distance of approximately 3 to 5 feet. Three borehole volumes will be purged plus any additional water that has been introduced into the boring during drilling.

1 borehole volume = linear feet 3 conversion factor

Borehole Diameter	Conversion Factor
7.25	2.14 gallons/foot
8.25	2.78 gallons/foot
10.25	4.29 gallons/foot
12.25	6.13 gallons/foot

4. Following purging, collect groundwater samples using the submersible pump and disposable discharge tubing.

If multiple analytical tests are to be performed, collect samples in order of decreasing sensitivity to handling-introduced bias (i.e., volatile organic compounds, semivolatiles, and metals). Water should be directed down the inside walls of the bottles to minimize aeration.

Groundwater samples for dissolved metals analysis will be field-filtered with a 0.45-micron filter by placing the filter directly on the end of the discharge hose from the submersible or peristaltic pump. Alternatively, water will initially be



collected in a disposable plastic sample bottle and then filtered using a peristaltic pump into the bottles that contain preservative.

5. Handle samples according to procedures in the project specific Field Sampling Plan. All the sample bottles will be properly labeled, protected from breakage, placed in storage bags, and placed in a cooler on ice and packed for transport to the laboratory. Ship samples to the laboratory within 48 hours of collection.
6. Following completion of groundwater sampling at each discrete interval, deflate the packer and retract the sampling apparatus from the inside of the augers. Resume drilling until the next discrete sampling interval is reached.
7. Decontaminate sampling equipment as described in SOP - 3, Decontamination Procedures. Decontaminate the pump and packer assembly between each sampling location and sampling interval and install new tubing.
8. Complete field documentation according to procedures in the project specific Field Sampling Plan. All field observations made and data generated in conjunction with the sample collection will be entered on the Boring Log Form and field logbook, dated, and signed by the field personnel. Complete the chain-of-custody documentation after samples are collected, and before moving to the next location.

APPENDIX A-2

Forms

Test Boring Log Form

Well Development Log

Water Level and NAPL Thickness Measurement Form

Soil Sampling Field Form

Groundwater Sampling Field Form

Sample Identification Matrix Form

Data Logging Worksheet Form

LOCATION



HOLE NO.

SHEET OF

TOTAL DEPTH

DATE BORED

DATE COMPLETED

WEATHER

TEST BORING LOG

SAMPLING

GROUNDWATER TABLE

PROJECT NAME

DATE TIME OF DRILLING

PROJECT NUMBER

GEOLOGIST/ENGINEER

DRILL NO. CONTACTOR/CREW

METHOD USED

SAMPLING METHOD OF STANDARD PENETRATION TEST (SPT) TUBE R-R NO.

SOIL DESCRIPTION

BORING
LOG
SUMMARY



Earth & Environmental

MONITORING WELL AS-BUILT REPORT

LOCATION _____

OBSERVED BY _____

DRILLER/INSTALLER _____

SOIL TYPE DEPTH

PROJECT No. _____

PROJECT NAME _____

BORING/WELL I.D. _____

DATE _____

START CARD #/ WELL TAG I.D.# _____

ABOVE GROUND RISER HEIGHT (IF APPLICABLE) _____

MONUMENT TYPE (IF APPLICABLE) _____

WELL CAP TYPE _____

GROUT TYPE/#SACKS _____

BENTONITE SEAL /#SACKS _____

WELL CASING I.D. _____

TYPE OF CASING _____

TYPE OF CONNECTION _____

FILTER PACK / SIZE/ #SACKS _____

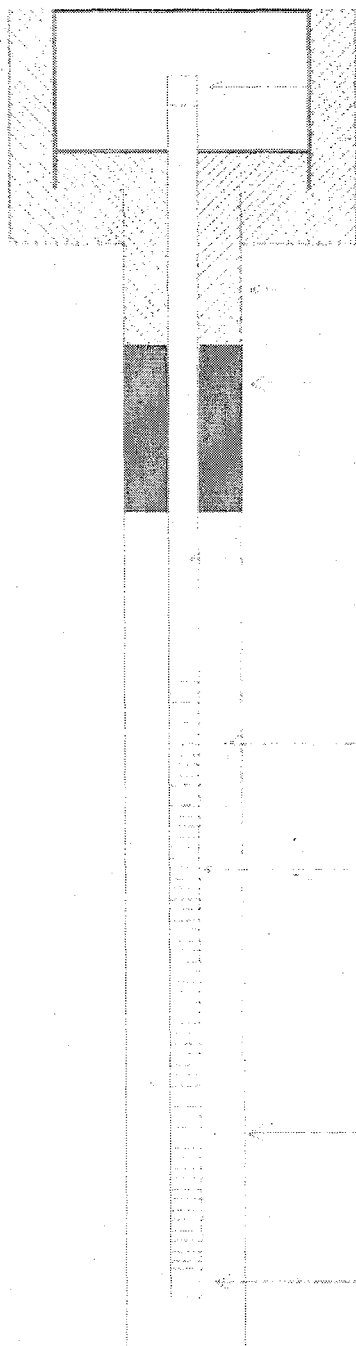
WELL SCREEN I.D. _____

TYPE OF SCREEN _____

SLOT SIZE _____

DIAMETER OF BOREHOLE _____

ENDCAP TYPE _____



REMARKS _____



WELL DEVELOPMENT LOG

Project Name: _____ Project Number: _____

Date: _____ Completed By: _____

Well Name: _____

Well Development Method: _____

Contractor Name: _____

Static Water Level Before Development (ft): _____ Depth of Well (toc): _____

Inside Diameter (in): _____ Volume of Water in Filter Pack and Well (gal): _____

Time Start Development: _____

Sediment in Well Bottom (in): Start: _____ Finish: _____

Time Start Development: _____

Time	Pumping Rate	Surveyed (Y/N)	Total Volume	Turbidity (NTU)	Notes

Volume of Water Removed from Well (gal): _____

Time Complete Development: _____

Static Water Level After Development (ft): _____

Notes:

**Water Level and NAPL Thickness Measurement Form
RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
AL2-17														
AL2-32														
AL2-46														
AL4-47														
AL5-19														
AL5-35														
AL5-62														
AL6-96														
ASW-01A														
ASW-04														
ASW-05														
ASW-06														
ASW-08														
BST2W-61														
BST5W-74														
BTB-4A-84														
BTB-4B-25														
BTB-4B-55														
KM-MW-2														
KM-MW-5														

**Water Level and NAPL Thickness Measurement Form
RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
MW-01-26														
MW-01-41														
MW-01-56														
MW-01-76														
MW-02-26														
MW-02-46														
MW-02-62														
MW-03-27														
MW-03-49														
MW-03-68														
MW-03-S														
MW-03-I														
MW-03-81														
MW-04-27														
MW-04-47														
MW-04-63														
MW-05-24														
MW-05-34														
MW-05-52														
MW-05-70														
MW-06-S														

**Water Level and NAPL Thickness Measurement Form
RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
MW-07-S														
MW-08-27														
MW-08-46														
MW-08-64														
MW-09-23														
MW-09-42														
MW-09-58														
MW-09-80														
MW-10-24														
MW-10-44														
MW-10-57														
MW-11-24														
MW-11-37														
MW-11-56														
MW-11-79														
MW-12-27														
MW-12-41														
MW-12-59														
MW-12-79														
MWA-3														
MWA-5														
MWA-9i														
MWA-13d														
MWA-14i														

Water Level and NAPL Thickness Measurement Form **RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
MWA-17si														
MWA-21b														
P-07														
P-10														
P-11														
PP-08														
PP-11														
PZ-02-40														
PZ-1-11														
RP-01-31														
RP-01-51														
RP-01-65														
RP-02-31														
RP-02-49														
RP-02-66														
RP-03-30R														
RP-03-52R														
RP-04-16														
RP-04-41														
RP-05-16														
RP-06-30														
RP-06-87														

RP

SCOEP A00031612

Water Level and NAPL Thickness Measurement Form **RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
RP-07-30														
RP-07-55														
RP-07-84														
RP-07-119														
RP-08-A														
RP-08-B														
RP-08-S														
RP-09-A														
RP-09-B														
RP-09-S														
RP-10-A														
RP-10-B														
RP-10-S														
RP-11-A														
RP-11-B														
RP-11-S														
RP-12-A														
RP-12-B														
RP-12-S														
RP-13-A														
RP-13-B														
RP-13-S														
RP-14-A														
RP-14-B														

RP

SCOEPAA00031613

**Water Level and NAPL Thickness Measurement Form
RP - Portland**

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
RP-14-S														
RPW-02														
RPW-03														
RPW-05														
W-03-D														
W-03-I														
W-03-S														
W-04-89														
W-04-I														
W-04-S														
W-06-D														
W-06-B														
W-06-S														
W-08-26														
W-08														
W-08-74														
W-09														
W-09-86														
W-09-116														
W-10														
W-11-B														
W-11-D														
W-11-I														
W-11-S														

Water Level and NAPL Thickness Measurement Form
RP - Portland

Monitoring Well	%LEL		PID (ppm)		Depth to Water Level (TOC-ft)	Observation of LNAPL or Sheen Detected	Depth to LNAPL (TOC-ft)	LNAPL Thickness (ft)	Total Depth (TOC-ft)	Observation of DNAPL	Depth to DNAPL (TOC-ft)	DNAPL Thickness (ft)	Date and Time of Measurement	Recorded by
	Back-ground	In Well Casing	Back-ground	In Well Casing										
W-12-D														
W-12-I														
W-12-S														
W-15-D														
W-15-I														
W-15-S														
W-16-31														
W-16-S														
W-16-D														
W-16-I														
W-18-D														
W-18-I														
W-18-S														
W-19-D														
W-19-I														
W-19-S														
WS-11-125														
WS-11-161														
WS-12-125														
WS-12-161														
SG-NDL*	Direct gauge reading:					Top of gauge reading:			Depth to water (TOG - DGR):					
SG-NDP*	Direct gauge reading:					Top of gauge reading:			Depth to water (TOG - DGR):					
SG-WDL*	Direct gauge reading:					Top of gauge reading:			Depth to water (TOG - DGR):					

* Staff gauges: Record the direct gauge reading (above or below zero on gauge), and top of gauge reading (e.g., 6.66 ft).
Then subtract direct gauge reading from top of gauge reading to get depth to water.

RP

K:\10703\Field Forms\Groundwater Level Measurement.xls

SCOEP A00031615

0-61M-107030 - RP SOIL SAMPLING FORM

SAMPLE LOCATION: _____
PERSONNEL: _____DATE: _____
WEATHER: _____

START TIME: _____

OBSERVATIONS/FIELD MEASUREMENTS

MEASUREMENT TYPE	VALUE / UNITS	INSTRUMENT	COMMENTS
AIR TEMP (°C)			
SOIL GRAIN SIZE DESCRIPTION			
SAMPLE DEPTH (FT)			
SOIL COLOR			
SOIL TYPE DESCRIPTION			
MOISTURE CONTENT (%)			
ANIMALS/PLANTS IN MEDIA			
VOC HEADSPACE READING			
UVLIGHT READING			
OBSERVATION OF CONTAMINATION (FT=DEPTH IN FEET)			

ADDITIONAL
COMMENTS/OBSERVATIONS

SAMPLE COLLECTION

SAMPLE NUMBER: _____ QA/QC NUMBER (S): _____ TIME: _____

DESCRIPTION: _____

LABORATORY (1) _____
LABORATORY (2) _____
LABORATORY (3) _____
LABORATORY (4) _____COC # _____
COC # _____
COC # _____
COC # _____

PARAMETER(S)	PRESERVATION/ SIZE	NUMBER/ VOLUME	LABORATORY	ICED (Y/N)	COMMENTS
Volatile Organic Compounds (VOCs) by EPA Method 8260B	Cool to 4°C (no headspace)/ 4 oz Glass Jar				
Organochlorine Pesticides by EPA Method 8081A	Cool to 4°C/ 1- 9 oz Glass Jar				
Chlorinated Herbicides by EPA Method 8151A					
Semivolatile Organic Compounds (SVOCs), including phenols, by EPA Method 8270C					
Polychlorinated Biphenyls (PCBs) by EPA Method 80802A					
Metals by EPA Methods 6010A, 6020, 7471A					
Total Organic Carbon (TOC) by EPA Method 9060 Modified	Cool to 4°C/ 4 oz Glass Jar				
Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx	Cool to 4°C/ 4 oz Glass Jar				
Dioxins/Furans (PCDD/PCDF) by EPA Method 8290	Cool to 4°C/ 4 oz Glass Jar				

SOP - 3: DECONTAMINATION PROCEDURES FOLLOWED? YES / NO

QA/QC SAMPLE COLLECTED? YES / NO

DESCRIBE: _____

CHAIN OF CUSTODY COMPLETED? YES/NO

WASTE DISPOSAL: _____

SAMPLING METHOD USED _____

SAMPLE TYPE (IE: GRAB, SPLIT, ETC.) _____

INSTRUMENT CALIBRATION: (Date/Time) _____

INSTRUMENT CALIBRATION STANDARD: _____

ADDITIONAL COMMENTS:

SIGNATURE



AMEC Earth & Environmental, Inc.
**GROUNDWATER
SAMPLING FIELD FORM**

Project Name:

Project #:

Monitoring/Sampling Date:

Monitoring Well ID:

Field Personnel:

Start Time:

Weather Conditions:

Approx. Air Temp (F):

INITIAL WELL DATA & WELL PURGING INFORMATION

PID (ppm) Background:	In well Casing:	PID Calibration Standard:
%LEL Background:	In well Casing:	PID Calibration Date:
Date/Time of Measurement:	/	Depth to Water Measuring Technique:
Depth Well Bottom (TOC - ft.):		Detection Method of Free Product:
Depth to Water Level (TOC - ft.):		Conversions Factors (casing dia. = gallons/linear ft.) Circle One
Depth to Free Product (TOC - ft.):		0.75" = 0.02 1" = 0.04 2" = 0.17 3" = 0.37
Calculated Column Height (ft.):		4" = 0.66 6" = 1.47 8" = 2.61 12" = 5.88
Casing Diameter (in.):		Three Well Purge Volumes (gallons) = 3 x _____ = _____
Quantity of Free Product Collected (gal.):		Method of Collecting Free Product:
Observation of sheen or LNAPL:		Observation of DNAPL:

Casing Volumes (#)	Volume Purged (liters)	Water Temperature (degree C)	Water pH (S.U.)	Specific Conductivity (ms)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mV)	Time (0:00 - 23:59)

Total Purged = _____ Purge Pumping Rate (approx. L/m): _____ Well Yield: High / Moderate / Low

Purge Method (circle one): PVC Bailer / Poly Bailer / SS Bailer / Peristaltic Pump / Grunfos Pump / Other = _____

Ferrous Iron (ppm): _____ Decontamination Method: _____

Instrument Type & Number: _____ Water Disposal: _____

Instrument Calibration Date & Time: _____ Approx. Pump/Intake Depth: _____

WELL CONDITION

Casing (circle one): Stainless Steel Carbon Steel PVC Other: _____

Casing Condition: OK / NA / Needs Repairs / Repaired	Lock Condition: OK / NA / Needs Repairs / Replaced
Cap Condition: OK / NA / Needs Repairs / Repaired	Inner Casing Condition: OK / NA / Needs Repairs / Repaired
Paint Condition: OK / NA / Needs Repairs / Repaired	Monument Condition: OK / NA / Needs Repairs / Repaired

Recommended Well Repairs: _____

SAMPLING INFORMATION / DATA

Date Sampled: _____ QA/QC Sample (circle one): YES / NO Water Chemistry Sample: YES / NO

Time Sampled: _____ Sampling Method (circle one): SS Bailer Poly Bailer Grunfos Pump

Chain-of-Custody #s: _____ Teflon Bailer Peristaltic Pump Other: _____

Sample ID	Bottles (total) (size)	Preservative	Destination Laboratory	Sample Transporter	Analytical Parameters

All samples were immediately placed into a cooler and packed with ice or "Blue Ice", unless otherwise noted: YES / NO

Field Observations/Notes of Sampling Event: _____

CERTIFICATION STATEMENT

By signing below, the listed AMEC sampler states that the information provided on this page is accurate.

Sampler (Print):

Sampler Signature:

Date Signed:

RP GW Sampling Field Form

K:10703\Forms\AMEC - Well Field Form - 8-30-2001.xls / RPAC form



Project Name _____	Project No. _____
Location _____	Date _____
_____	Personnel _____
Client _____	Weather _____
Data Logger Model/Serial Number _____	Filename _____
Transducer Model//Serial Number _____	Transducer PSI Rating _____

[illegible]
$$\text{Depth to Probe} = \text{depth to water} + \text{sensor reading}$$

Comments: (e.g., calibration factors, change of batteries, change of set-up, field observations):

**NW Natural
AMBIENT INDOOR AIR EVALUATION REPORT**

Siltronic Corporation Facility
7200 NW Front Avenue
Portland, Oregon

April 20, 2005

Project No. 5237

HAI/ HAHN AND ASSOCIATES, INC.
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www.hahnenv.com

ENVIRONMENTAL CONSULTANTS
ASSESSMENT
INVESTIGATION
REMEDIATION

**NW Natural
AMBIENT INDOOR
AIR EVALUATION
REPORT**

Siltronic Corporation Facility
7200 NW Front Avenue
Portland, Oregon

April 20, 2005

Prepared for:

NW Natural
Portland, Oregon

Prepared by:

Hahn and Associates, Inc.
Portland, Oregon

HAI Project No. 5237

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APPENDICES

- A Clayton Group Services Report

1.0 INTRODUCTION

On behalf of NW Natural, Hahn and Associates, Inc. (HAI) has prepared this report providing results of the ambient indoor air evaluation conducted at the Siltronic Corporation (Siltronic) facility located at 7200 NW Front Avenue, Portland, Oregon (Figure 1). The air evaluation was conducted at the request of the Oregon Department of Environmental Quality (DEQ). Sampling and analytical procedures were conducted in accordance with the DEQ-approved *Work Plan for Ambient Indoor Air Evaluation, Rev. 1* (HAI 2004).

The remainder of this report presents background information, a description of field activities, air sample results and discussion, and conclusions and recommendations.

2.0 BACKGROUND

Siltronic operates a silicon wafer fabricating facility on an 85-acre site along the western bank of the Willamette River in a section of northwest Portland zoned by the City as "Heavy Industrial" (Figures 1 and 2). Construction of the Siltronic facility began immediately after the property was purchased by Siltronic in 1978. Construction of the Fab 1 Building was completed by the end of 1979, and plant operations began in March 1980.

The Siltronic property was mainly undeveloped prior to the construction of the Siltronic facility. Immediately northwest of the Siltronic site, Portland Gas & Coke (PG&C) operated a manufactured gas plant (MGP) oil gasification facility, known as the Gasco facility, from 1913 to 1956. With the arrival of natural gas in the 1950s, PG&C changed its name to the Northwest Natural Gas Company, and more recently to NW Natural. Information regarding previous ownership of the Siltronic property and PG&C plant operations are included in the *Final Focused Remedial Investigation Work Plan* (HAI 2001).

In 2004, DEQ requested that NW Natural conduct an indoor air assessment at the Siltronic facility because of detections of benzene in soil and groundwater. In November 2004, HAI submitted a *Work Plan for Ambient Indoor Air Evaluation, Rev. 1* (Work Plan) (HAI 2004) to DEQ for conducting an indoor air evaluation at the Siltronic facility. The Work Plan described the

air sampling methodology, sample collection locations, and sample analysis and reporting procedures. The Work Plan included the following objectives for the air evaluation:

- Evaluate the potential exposure of workers in four on-site buildings to aromatic hydrocarbons (e.g., benzene, toluene, ethylbenzene, xylene [BTEX] and naphthalene).
- Collect ambient indoor air trichloroethene (TCE) data (and its breakdown products) and provide the data to DEQ and Siltronic for evaluation.

The Work Plan included a total of fifteen air samples to be collected and analyzed, including six control/background outdoor air samples. Subsequent to submittal of the Work Plan, HAI clarified minor adjustments to three of the sampling locations with DEQ (emails on December 7, 2004 and January 10, 2005; Mr. Mark Whitson to Mr. Matt McClincy).

In addition to NW Natural's indoor air evaluation, Siltronic conducted an indoor air evaluation in the northwest portion of the Fab 1 Building. Specifically, in August 2004, Maul Foster & Alongi, Inc. (MFA) and Marine & Environmental Testing, Inc. conducted indoor air sampling to evaluate potential impacts to indoor air due the presence of TCE and its degradation products in groundwater below the Fab 1 building at the Siltronic facility. The indoor air evaluation also included analysis of air samples for aromatic hydrocarbons, including BTEX and naphthalene. A total of six air samples were collected and analyzed. The sampling procedures, analytical methods, and sample results are included in the *Final Fab 1 Indoor Air Sampling Report* (MFA 2004).

3.0 FIELD ACTIVITIES

HAI contracted with Clayton Group Services (Clayton) to provide a Certified Industrial Hygienist to conduct the air sampling activities at the Siltronic property. On January 25, 2005, Clayton (accompanied by HAI and Siltronic personnel) collected air samples from fifteen locations at the Siltronic facility. The air samples included nine collected from four occupied buildings at the facility, plus six control/background outdoor air samples. Background information concerning the four buildings that were sampled, sample locations, and sampling and analysis methodology are described below.

3.1 Building Construction and Operation

The Siltronic facility consists of two primary manufacturing buildings (Fab 1 and Fab 2 Buildings), an administration building, and nine support buildings. Based on review of facility information and an August 20, 2004 inspection of potential air sampling locations with DEQ, Siltronic, and NW Natural representatives, the following buildings were identified to be included in the indoor air evaluation:

- Fab 1 Building
- Fab 2 Building
- Central Facilities Building (CFB)
- Fab 1 Wastewater Treatment Plant (WWTP) Building

Fab 1 operations include slicing, lapping, etching, polishing, epitaxy, and cleaning. The building also houses administrative, engineering, warehousing, shipping, and support services. The Fab 1 building is mostly constructed as slab-on-grade, with the exception of a basement area in the western portion of the building. Except for the basement, the slab is six inches thick throughout the building and is continuously sealed. In the basement, the slab is two feet thick.

Fab 2 operations include slicing, lapping, etching, polishing, epitaxy, and cleaning. The building also houses administrative, engineering, and support services. The Fab 2 building is constructed as slab-on-grade. For the main portion of the building where silicon wafer fabrication is conducted, the slab is three feet thick. In the outer portions of the building (e.g., offices, lobby) the slab is six inches thick.

Certain operations in both the Fab 1 and Fab 2 buildings require "clean rooms" where airborne particles are undesirable. The clean rooms are maintained at positive pressure to the rest of the building to prevent the entrance of particles. Siltronic correspondence dated May 28, 2004 (Mr. Tom McCue to Mr. Bob Wyatt) provided the following information regarding air pressure and flow related to maintaining a positive pressure in the Fab 1 and Fab 2 buildings. To maintain positive pressure in the clean rooms, the entire buildings (both Fab 1 and Fab 2) are maintained at positive pressure (0.1 – 0.17 inches water) relative to the outside air. A significant amount of air is required to maintain the positive pressure inside the buildings. Fab 1 requires 70,000 standard cubic feet per minute (scfm) of makeup air that is

introduced into the building through rooftop penthouses. One third of the Fab 1 makeup air passes through carbon filters. Fab 2 requires 115,000 scfm of makeup air that is introduced into the building by air intakes on the south and west sides of the building. All of the makeup air in Fab 2 passes through carbon filters.

The CFB includes boilers, chillers, electrical equipment, air compressors, and ultrapure water facilities. The building is not operated at positive pressure and the intake air is not filtered. Siltronic provided available construction information for the CFB chiller room and air compressor room, where the air samples were collected as discussed later in this report (email on March 30, 2005; Mr. Myron Burr to Mr. Mark Whitson). The CFB is constructed as slab-on-grade. The slab of the chiller room is six inches thick. There is no available information regarding a vapor barrier for the chiller room floor. Joints can be seen in the as-constructed floor. The slab of the air compressor room is twelve inches thick. The base under the concrete is six inches of compacted granular fill, a vapor barrier, and the two inches of sand fill. A joint can be seen in the as-constructed floor.

The Fab 1 WWTP building includes the controls for operating the WWTP. Routine on-site wastewater analyses are performed in the control room. The building is not operated at positive pressure and the intake air is not filtered. Siltronic provided available construction information for the Fab 1 WWTP control room (email on March 30, 2005; Mr. Myron Burr to Mr. Mark Whitson). Siltronic has indicated that building drawings show that the floor of the control room is slab-on-grade and the slab is six inches thick. It is not clear on the drawings whether a vapor barrier was installed or whether the floor has joints. The concrete floor is covered by sheet linoleum.

3.2 Air Sampling Activities and Locations

Clayton implemented the field work activities for the air sampling event. Clayton's report describing the sampling activities is included as Appendix A. The sampling consisted of deployment of Summa canisters fitted with flow controllers designed to collect air over an eight-hour period. The samples were submitted to Air Toxics Ltd. in Folsom, California for analysis by US Environmental Protection Agency (EPA) Modified Method TO-15.

Brief descriptions of the fifteen sample locations are provided below and are shown on Figures 2 through 6. The sample location numbers presented in the Work Plan were used for the January 25, 2005 sampling event.

- Station 1: Fab 1, First Floor – Lobby Area. Located behind the security desk (Figure 3).
- Station 2: Fab 1, First Floor – Shipping/Storage Area. Located in northeast corner of the shipping/storage area, near an office (Figure 3).
- Station 3: Roof of Fab 1 – Control/background outdoor air comparison sample. Located on the eastern end of building, near an outdoor air intake for the air-handling units.
- Station 4: Fab 2, SubFab Level 1 – Process Area. Located in the process area at the northern portion of the building, in an area that is on the 3-foot concrete slab-on-grade (Figure 4).
- Station 5: Fab 2, SubFab Level 1 – Process Area. Located in the process area at the southern portion of the building, in an area that is on the 3-foot concrete slab-on-grade (Figure 4).
- Station 6: Fab 2, SubFab Level 1 – Office Area. Located in office area on the 6-inch concrete slab-on-grade (Figure 4).
- Station 7: Fab 2, SubFab Level 1 – Lobby Area. Located behind the security desk on the 6-inch concrete slab-on-grade (Figure 4).
- Station 8: Roof of Fab 2 – Control/background outdoor air comparison sample. Located in middle of roof area, approximately 100 feet south of northern side of the building.
- Station 9: Central Facilities Building – Ground floor, northwestern portion of the building. Located in the chillers room (Figure 5).
- Station 10: Central Facilities Building – Ground floor, at the southwestern portion of the building. Located in air compressor room (Figure 5).
- Station 11: Fab 1 WWTP Building – Located in WWTP control room (Figure 6).
- Station 12: Outdoors, At grade, Control/background outdoor air comparison sample. Located at south property boundary.
- Station 13: Outdoors, At grade, Control/background outdoor air comparison sample. Located near southeast property boundary.

Station 14: Outdoors, At grade, Control/background outdoor air comparison sample. Located in landscaping adjacent to parking lots, near the guard shack at the facility entrance.

Station 15: Outdoors, At grade, Control/background outdoor air comparison sample. Located at west property boundary, due west of Central Utility Building.

3.3 Sampling Equipment

The air samples were collected using stainless steel evacuated (partial vacuum or negative pressure) 6-liter Summa canisters. The canisters utilized a calibrated precision critical orifice device to slowly collect representative air samples. The canisters were ordered from Air Toxics Ltd., an accredited laboratory located in Folsom, California. All of the canisters were 100% certified and calibrated with matched canister, matched mass flow controller, and matched stainless steel sampling cane. The canisters were set for an 8-hour integrated sample period. The sampling canes were custom ordered to 4.5 feet above the floor or ground to simulate a breathing zone level. The top of each cane was designed with an inverted curve downward to reduce the potential for rain, dust or other debris from being improperly entrained into the sample stream.

For the exterior sample locations, a Brunton Summit Atmospheric Data Center® meter was used to measure wind speed, wind direction, temperature, and barometric pressure.

3.4 Analytical Methods

The air samples were submitted to Air Toxics Ltd. for analysis. Chain of custody procedures were maintained for the samples. The samples were analyzed utilizing EPA Modified TO-15 gas chromatography with mass spectrometry. Laboratory Quality Control and Quality Assurance standards were conducted and documented. In limited cases (where detected concentrations were greater than method detection limit [MDL] but lower than practical quantitation limit [PQL]) the data was J-Flagged for estimated concentrations. The data were validated and no sample results were invalidated.

4.0 RESULTS AND DISCUSSION

A summary of analytical method detection and practical quantitation limits for contaminants of interest (COIs) are presented in Table 1, while COI results are summarized in Table 2. Analytical results for other analytes and the laboratory report, including analytical results, data validation, and quality assurance/quality control documentation, are included in Appendix A.

4.1 Screening Levels

Analytical results summarized in Table 2 are compared to the following standards, guidelines, and ambient levels:

- Oregon Department of Consumer & Business Services, Oregon Occupational Safety & Health Division (OR-OSHA), Permissible Exposure Limits (PELs). The PELs are regulatory levels that are set to protect workers against the health effects of exposure to hazardous substances. PELs are based on an 8-hour time weighted average exposure.
- DEQ Guidance, Risk-Based Decision making for the Remediation of Petroleum-Contaminated Sites, Appendix A: Table of RBCs (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational) and Table J.4: Generic RBCs for Chlorinated Solvents (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational). The DEQ RBCs are guidelines that are used in the evaluation of petroleum-contaminated sites. The RBCs are used as a screening tool; an exceedance of an RBC does not necessarily indicate that an unacceptable risk actually exists or that remedial action is required.
- U.S. National Institute for Occupational Safety and Health (NIOSH), Recommended Exposure Limits (RELs). RELs are 8-hour time weighted average guidelines that are used as general industry standards for employee exposures.
- American Conference of Governmental Industrial Hygienists (ACGIH), 2004 Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs) booklet. TLVs are 8-hour time weighted average guidelines that are used as general industry standards for employee exposures.

- VOC data collected from two DEQ ambient air monitoring stations in Portland: the Forest Heights Post Office station at 1706 NW 24th Street; and the North Roselawn station located at 24 N. Emerson.
- U.S. EPA Building Assessment and Survey Evaluation (BASE) database of indoor environmental conditions in office buildings.

4.2 Results

Seven of the eight aromatic hydrocarbons (toluene, ethylbenzene, m,p-xylene, o-xylene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene) listed in Table 2 were not detected at concentrations exceeding DEQ RBCs (the most conservative of the various screening levels). The concentrations of these constituents are also well below OR-OSHA PELs, and NIOSH and ACGIH guidelines.

Benzene is the only aromatic hydrocarbon detected in the air samples that exceeded its DEQ RBC, established at 1.5 ug/m³ (Figure 7). The benzene concentrations in all fifteen air samples exceeded the DEQ RBC for this constituent, with identified concentrations ranging from 1.8 ug/m³ (in the Fab 2 process area and on the Fab 2 building roof) to 5.5 ug/m³ (in the CFB air compressor room). Although greater than the DEQ RBC, all of the detected benzene concentrations are well below OR-OSHA PELs, NIOSH, and ACGIH guidelines.

DEQ operates two ambient air monitoring stations located in northwest and north Portland, as shown on Table 2. Measured benzene concentrations for the for DEQ's Forest Heights Post Office ambient air monitoring station (located at 1706 NW 24th St., Portland, Oregon) range from <0.3 to 5.1 ug/m³. Measured benzene concentrations for the DEQ's North Roselawn ambient air monitoring station (located at 24 N. Emerson, Portland, Oregon) range from <0.3 to 7.7 ug/m³. The range of benzene concentrations identified at the Siltronic property (1.8 to 5.5 ug/m³) are all below the maximum concentration detected at the DEQ Emerson station, and within or near the range of concentrations detected at the DEQ Forest Heights Post Office station.

Benzene concentrations were also compared to EPA's Building Assessment and Survey Evaluation (BASE) data as shown on Table 2. The BASE study has included data collection in over 70 office buildings for different regions throughout the United States (IEQ Strategies 1998). The buildings were

selected without regard to indoor air quality concerns, except that buildings with highly publicized indoor air quality problems were excluded. The objective of the BASE study has been to characterize indoor environmental conditions in buildings and provide a database for other researchers to use. In an interim report on study results, researchers identified VOCs in the first 41 buildings studied. Benzene was detected in 81% to 99% of the analyzed samples, with concentrations ranging from 1.7 to 61 ug/m³ being identified. The benzene concentrations at the Siltronic site (1.8 to 5.5 ug/m³) are at the lower end of the BASE study range.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the ambient indoor air evaluation at the Siltronic facility, conclusions and recommendations are as follows:

- Seven of the eight aromatic hydrocarbon COIs (toluene, ethylbenzene, m,p-xylene, o-xylene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene) were not detected at concentrations exceeding DEQ RBCs. The concentrations of these constituents are also well below OR-OSHA PELs, NIOSH, and ACGIH guidelines.
- Benzene is the only aromatic hydrocarbon detected in the air samples that exceeded a DEQ RBC, with benzene concentrations in all fifteen air samples exceeding the RBC at relatively uniform concentrations across the site, and within the range of ambient benzene concentrations at the DEQ ambient air monitoring stations in northwest and north Portland.
- All of the detected benzene concentrations are well below OR-OSHA PELs, NIOSH, and ACGIH guideline concentrations.
- Because of the relatively small range and low concentrations of benzene detected in the air samples across the Siltronic site, no correlation was identified between sample locations and possible sources of benzene related to soil and/or groundwater impacts.
- Based on comparison to nation-wide (EPA BASE Program) and local (DEQ ambient air monitoring stations) data, it appears that identified aromatic hydrocarbon concentrations are well with typical ambient levels anticipated for an urban environment.

In summary, results of the air sampling activities described herein do not indicate the presence of aromatic hydrocarbons at levels that would suggest contribution from on-site soil and/or groundwater impacts. As such, the indoor air pathway does not appear to be of concern with regard to these COIs and further evaluation of this pathway does not appear warranted at this time.

6.0 LIMITATIONS

The information presented in this report was collected, analyzed, and interpreted following the standards of care, skill, and diligence ordinarily provided by a professional in the performance of similar services as of the time the services were performed. This report and the conclusions and/or recommendations contained in it are based solely upon research and/or observations, and physical sampling and analytical activities, if any, that were conducted at the Client's request.

The information presented in this report is based only upon activities witnessed by HAI or its contractors, and/or upon information provided to HAI by the Client and/or its contractors. The analytical data presented in this report, if any, document only the concentrations of the target analytes in the particular sample, and not the property as a whole.

Unless otherwise specified in writing, this report has been prepared solely for the use by the Client and for use only in connection with the evaluation of the subject property. Any other use by the Client or any use by any other person shall be at the user's sole risk, and HAI shall have neither liability nor responsibility with respect to such use.

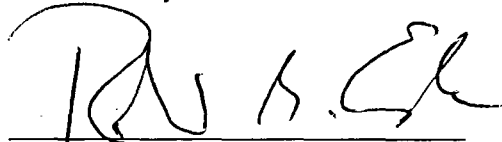
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Date 4-20-2005

7.0 REFERENCES

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IEQ Strategies, 1998, *BASE Study Finds 50 VOCs in "Non-Complaint" US Office Buildings*, IEQ Strategies Publication, January 1998.

MFA (Maul Foster & Alongi, Inc.), 2004, *Final Fab 1 Indoor Air Sampling Report, Siltronic Corporation Site, 7200 NW Front Avenue, Portland, Oregon*, November 17, 2004.

8.0 GLOSSARY OF ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
BASE	Building Assessment and Survey Evaluation
BEI	biological exposure indices
bgs	below existing ground surface
BTEX	benzene, toluene, ethylbenzene, xylene
CFB	Central Facilities Building
COI	contaminant of interest
DEQ	Oregon Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAI	Hahn and Associates, Inc.
MDL	method detection limit
MFA	Maul Foster & Alongi, Inc.
MGP	manufactured gas plant
NIOSH	U.S. National Institute for Occupational Safety and Health
OAR	Oregon Administrative Rules
OR-OSHA	Oregon Occupational Safety & Health Division
PEL	permissible exposure limit
PG&C	Portland Gas & Coke
PQL	practical quantitation limit
RBC	risk-based concentration
REL	recommended exposure limits
RI	remedial investigation
scfm	standard cubic feet per minute
TCE	trichloroethene
TLV	threshold limit values
TPH	total petroleum hydrocarbons
ug/m ³	micrograms per cubic meter of air
VOCs	volatile organic compounds
WWTP	wastewater treatment plant

**TABLE 1 - Modified EPA Method TO-15
Analytical Limits, RBCs, and PELs**

Analyte	Method Detection Limit	Practical Quantitation Limit	DEQ Occupational Risk-Based Concentration (RBC _{air}) ¹	OR-OSHA Permissible Exposure Limit (PEL)
	(ug/m ³)			
Benzene	0.03	0.42 - 0.58	1.5	3,190
Toluene	0.02	0.49 - 0.69	1,600.	754,000
Ethybenzene	0.03	0.56 - 0.79	4,200.	435,000
m,p-Xylene	0.03	0.56 - 0.79	420 ²	435,000
o-Xylene	0.04	0.56 - 0.79	420 ²	435,000
1,2,4-Trimethylbenzene	0.02	0.64 - 0.90	25.	-
1,3,5-Trimethylbenzene	0.03	0.64 - 0.90	25.	-
Naphthalene	0.2	3.4 - 4.8	13.	50,000
Trichloroethene	0.05	0.70 - 0.98	0.1	537,000
cis-1,2-Dichloroethene	0.09	0.52 - 0.72	150.	-
trans-1,2-Dichloroethene	0.06	2.6 - 3.6	290.	-
1,1-Dichloroethene	0.05	0.52 - 0.72	830.	-
Vinyl chloride	0.04	0.33 - 0.47	2.6	2,560

Notes:

DEQ = Oregon Department of Environmental Quality

OR-OSHA = Oregon Occupational Safety & Health Division

- = there is no PEL for this compound

ug/m³ = micrograms per cubic meter of air

1 = from *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites*,

DEQ, September 22, 2003, Occupational Exposure Pathway

2 = RBC is for total xylenes

TABLE 2 - Summary of Analytical Results for Contaminants of Interest in Air Samples by Modified EPA Method TO-15

Sample Location	Benzene		Toluene		Ethyl Benzene		m,p-Xylene		o-Xylene		1,2,4-Trimethylbenzene		1,3,5-Trimethylbenzene		Naphthalene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station #1 Fab 1, Office	1.2	3.8	16	62	0.87	3.8	2.9	13	1.0	4.4	1.0	4.9	0.28	1.4	ND	ND
Station #2 Fab 1, Shipping/Storage	0.91	2.9	5.2	20	0.85	3.7	2.8	12	0.99	4.3	0.83	4.1	0.25	1.2	ND	ND
Station #3 Roof of Fab 1, Control/Background	1.0	3.3	2.4	9.1	0.97	4.2	3.1	13	1.0	4.6	0.84	4.1	0.24	1.2	ND	ND
Station #4 Fab 2, SubFab, Process Area	0.63	2.0	2.2	8.3	0.27	1.2	0.94	4.1	0.38	1.7	0.52	2.6	0.14 J	0.67 J	ND	ND
Station #5 Fab 2, SubFab, Process Area	0.56	1.8	1.7	6.4	0.30	1.3	0.97	4.2	0.36	1.6	0.44	2.2	0.094 J	0.46 J	ND	ND
Station #6 Fab 2, SubFab, Office	0.69	2.2	3.2	12	0.3	1.3	1.0	4.4	0.41	1.8	0.41	2.0	0.14 J	0.68 J	ND	ND
Station #7 Fab 2, SubFab, Lobby	0.77	2.5	3.2	12	0.34	1.4	1.1	5.0	0.41	1.8	0.37	1.8	0.10 J	0.50 J	ND	ND
Station #8 Roof of Fab 2, Control/Background	0.55	1.8	1.3	5.0	0.28	1.2	0.83	3.6	0.38	1.6	0.42	2.1	0.11 J	0.53 J	ND	ND
Station #9 Central Facilities, NW Room (Chillers)	1.3	4.3	6.8	26	1.0	4.4	3.5	15	1.2	5.3	0.91	4.5	0.24	1.2	ND	ND
Station #10 Central Facilities, Compressor Room	1.7	5.5	2.1	8.0	0.55	2.4	1.9	8.1	0.7	3.0	0.7	3.4	0.22	1.1	ND	ND
Station #11 Fab 1, Wastewater Treatment Plant Building	1.7	5.4	4.0	15	0.49	2.1	1.7	7.4	0.59	2.6	0.66	3.2	0.19	0.96	0.59 J	3.1 J
Station #12 Outside, South Center Fence, Control/Background	1.1	3.5	2.0	7.5	0.47	2.0	1.4	6.2	0.46	2.0	0.72	3.5	0.24	1.2	0.85	4.4
Station #13 Outside, Southeast Fence, Control/Background	1.6	5.2	4.3	16	1.1	4.6	3.0	13	0.99	4.3	1.2	6.0	0.42	2.0	2.2	11
Station #14 Outside, Near Guard Shack, Control/Background	0.64	2.0	1.7	6.3	0.49	2.1	1.6	6.7	0.62	2.7	0.6	0.29	0.17	0.86	ND	ND
Station #15 Outside, West of Central Utilities Building, Control/Background	0.98	3.1	2.2	8.3	0.58	2.5	1.6	7.0	0.65	2.8	0.61	3.0	0.18	0.9	ND	ND
DEQ RBC ¹	--	1.5	--	1,600	--	--	--	420	--	420	--	25	--	25	--	13
OR-OSHA 8-Hour TWA-PEL	1,000	3,190	2.0x10 ⁵	7.54x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	--	--	--	--	1.0x10 ⁴	5.0x10 ⁴
NIOSH TWA-REL	100	320	1.0x10 ⁵	3.75x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	2.5x10 ⁴	1.25x10 ⁵	2.5x10 ⁴	1.25x10 ⁵	1.0x10 ⁴	5.0x10 ⁴
ACGIH TWA-TLV	500	--	5.0x10 ⁴	--	1.0x10 ⁵	--	1.0x10 ⁵	--	1.0x10 ⁵	--	--	--	--	--	1.0x10 ⁴	--
US EPA BASE	--	1.7 - 61	--	3.8 - 390	--	1.2 - 20	--	4.0 - 69	--	1.1 - 15	--	1.2 - 93	--	1.2 - 11	--	2.2 - 410
Portland Forest Heights Post Office (1999-2003)	< 0.1 - 1.6	< 0.3 - 5.1	< 0.1 - 7.7	--	< 0.1 - 1.6	--	< 0.1 - 6.5	--	< 0.1 - 2.0	--	--	--	--	--	--	< 0.0082 - 0.0086
Portland North Roselawn (1999-2003)	< 0.1 - 2.4	< 0.3 - 7.7	< 0.1 - 7.6	--	< 0.1 - 1.8	--	< 0.1 - 7.7	--	< 0.1 - 2.9	--	--	--	--	--	--	< 0.0003 - 0.0125

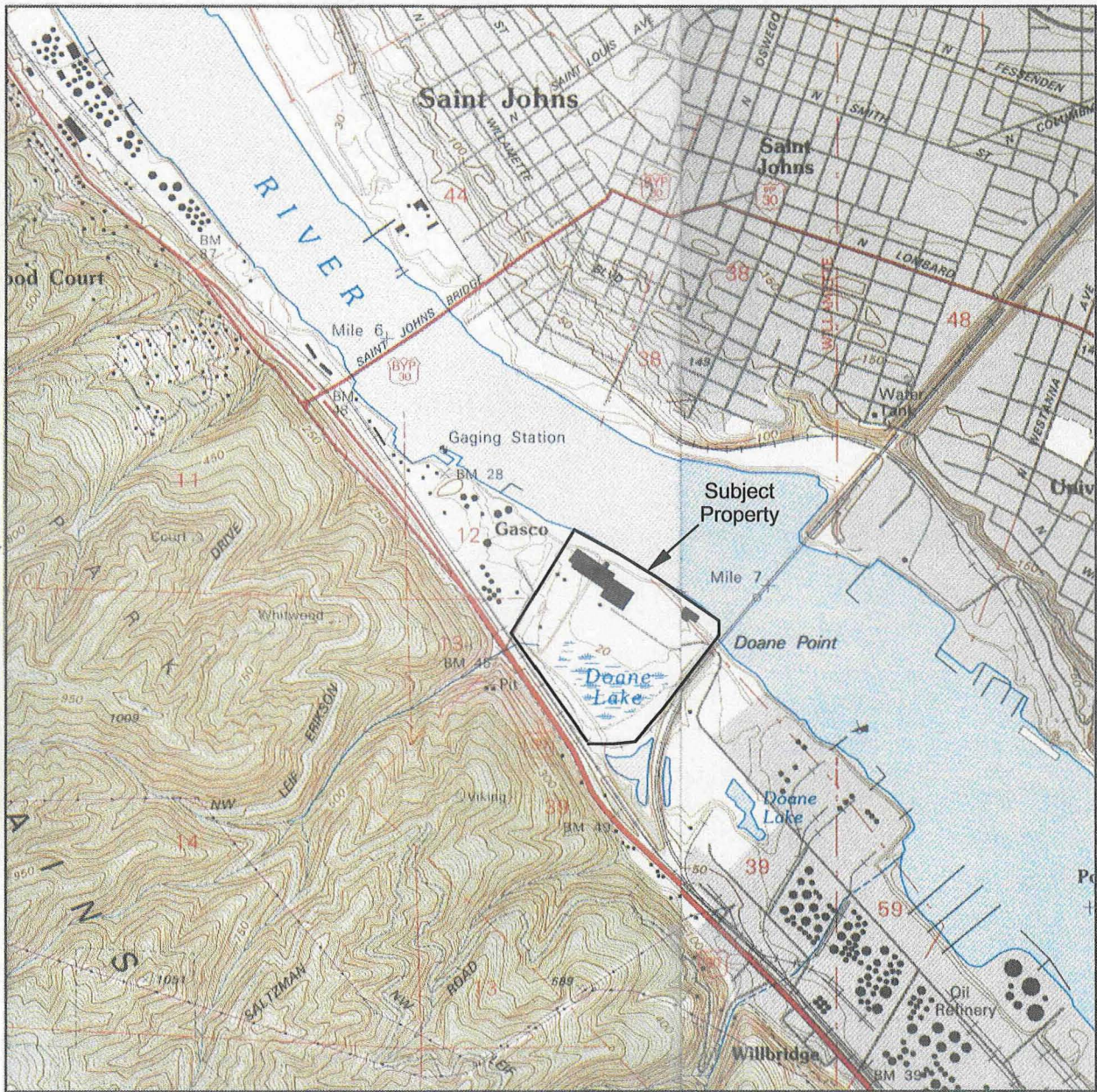
Notes:
ppbv: parts per billion-volume
ug/m3: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Suvey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Admin.
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conf. of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
RBC: Risk-Based Concentration
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Department of Environmental Quality
ND: Not Detected
J: Estimated value, identified concentration is below laboratory Practical Quantitation Limit
Bold: Exceeds DEQ RBC
*: 10-hour TWA
1 = from Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites, DEQ, September 22, 2003, Occupational Exposure Pathway

TABLE 2 - Summary of Analytical Results for Contaminants of Interest in Air Samples by Modified EPA Method TO-15

Sample Location	Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		1,1-Dichloroethene		Vinyl Chloride	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station #1 Fab 1, Office	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #2 Fab 1, Shipping/Storage	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #3 Roof of Fab 1, Control/Background	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #4 Fab 2, SubFab, Process Area	0.16 J	0.85 J	ND	ND	ND	ND	ND	ND	ND	ND
Station #5 Fab 2, SubFab, Process Area	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #6 Fab 2, SubFab, Office	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #7 Fab 2, SubFab, Lobby	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #8 Roof of Fab 2, Control/Background	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #9 Central Facilities, NW Room (Chillers)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #10 Central Facilities, Compressor Room	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #11 Fab 1, Wastewater Treatment Plant Building	0.11 J	0.58 J	ND	ND	ND	ND	ND	ND	ND	ND
Station #12 Outside, South Center Fence, Control/Background	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #13 Outside, Southeast Fence, Control/Background	0.083 J	0.44 J	ND	ND	ND	ND	ND	ND	ND	ND
Station #14 Outside, Near Guard Shack, Control/Background	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Station #15 Outside, West of Central Utilities Building, Control/Background	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEQ RBC ¹	--	0.10	--	150	--	290	--	830	--	2.6
OR-OSHA 8-Hour TWA-PEL	1.0x10 ⁵	5.37x10 ⁵	--	--	--	--	--	--	1000	2560
NIOSH TWA-REL	2.5x10 ⁴ *	--	--	--	2.0x10 ⁵	7.9x10 ⁵	--	--	--	--
ACGIH TWA-TLV	5.0x10 ⁴	--	2.0x10 ⁵	--	2.0x10 ⁵	--	5000	--	1000	--
US EPA BASE	--	0.9 - 90	--	--	--	--	--	--	--	7.5
Portland Forest Heights Post Office (1999-2003)	< 0.1 - 0.12	--	< 0.10	--	--	--	--	--	< 0.1	--
Portland North Roselawn (1999-2003)	< 0.1 - 0.12	--	< 0.10	--	--	--	--	--	< 0.1	--

Notes:
ppbv: parts per billion-volume
ug/m3: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Suvey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Admin.
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conf. of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
RBC: Risk-Based Concentration
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Department of Environmental Quality
ND: Not Detected
J: Estimated value, identified concentration is below laboratory Practical Quantitation Limit
Bold: Exceeds DEQ RBC
*: 10-hour TWA
1 = from Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites, DEQ, September 22, 2003, Occupational Exposure Pathway

FIGURES



Note: Base Map from Linnton (1990) and Portland (1990), Oregon, USGS 7.5-Minute Quadrangles



0 2,000 4,000
Approximate Scale in Feet

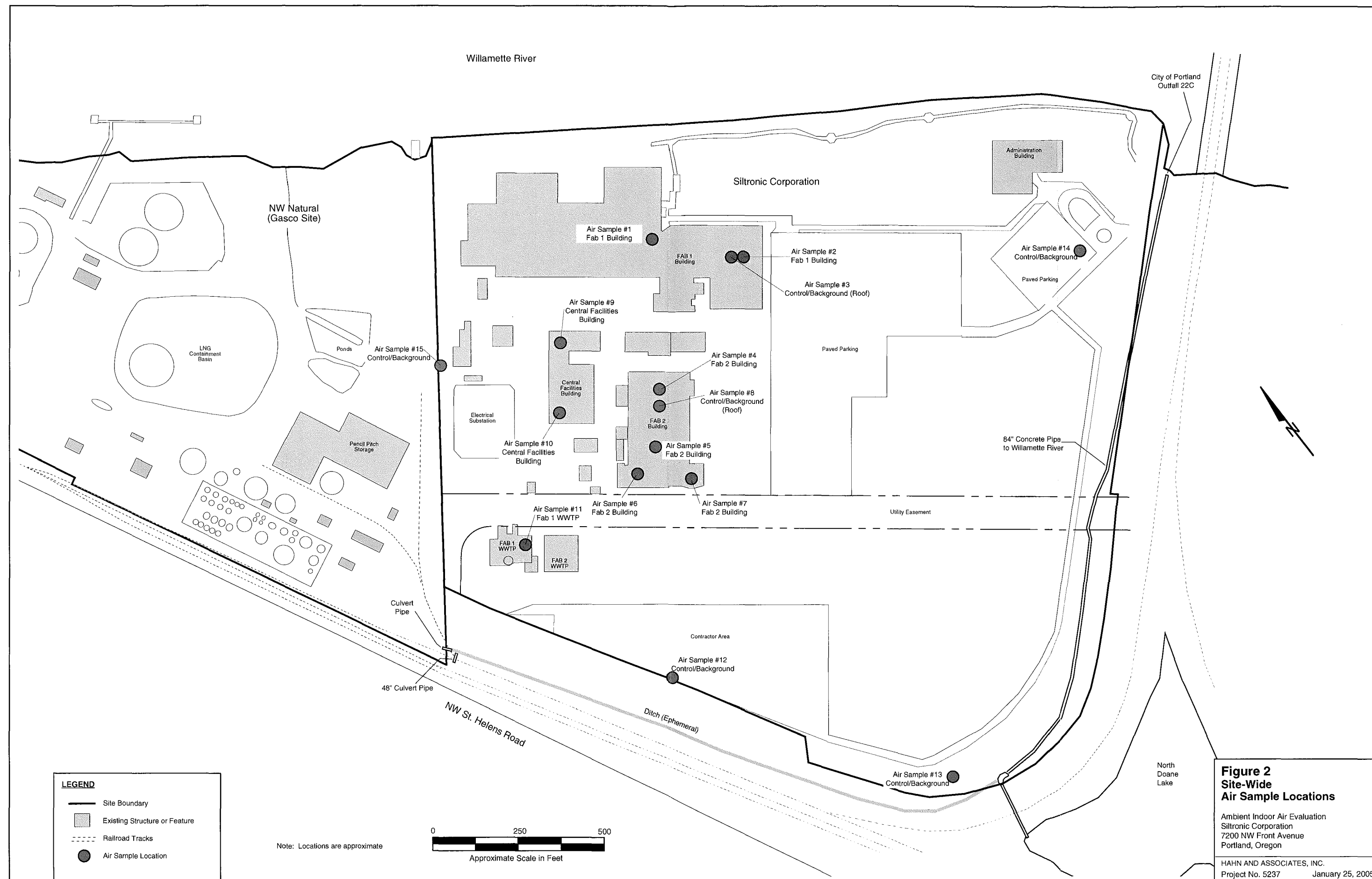
FIGURE 1

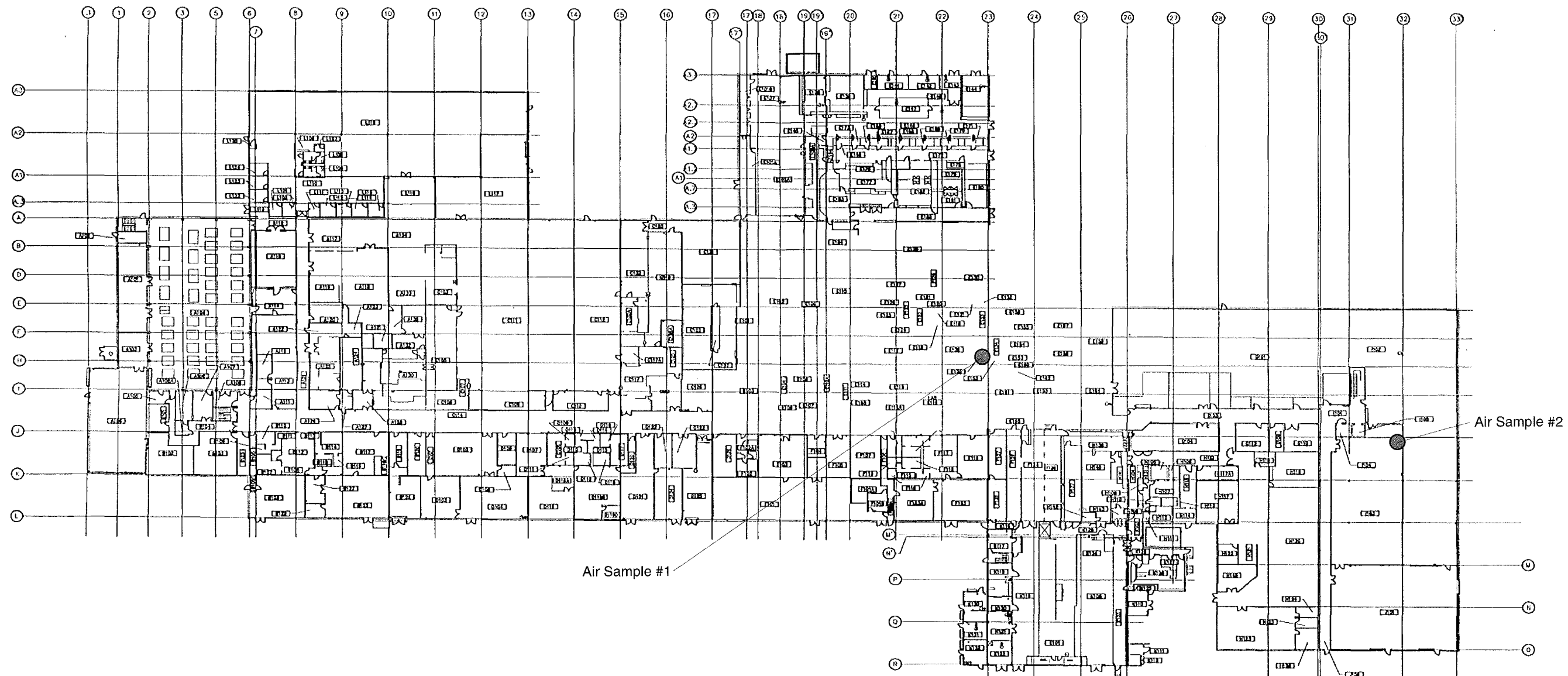
Location Map

Siltronic Corporation
7200 NW Front Avenue
Portland, Oregon

HAHN AND ASSOCIATES, INC.
Project No. 5237

April 2005





FAB 1 FIRST FLOOR

LEGEND

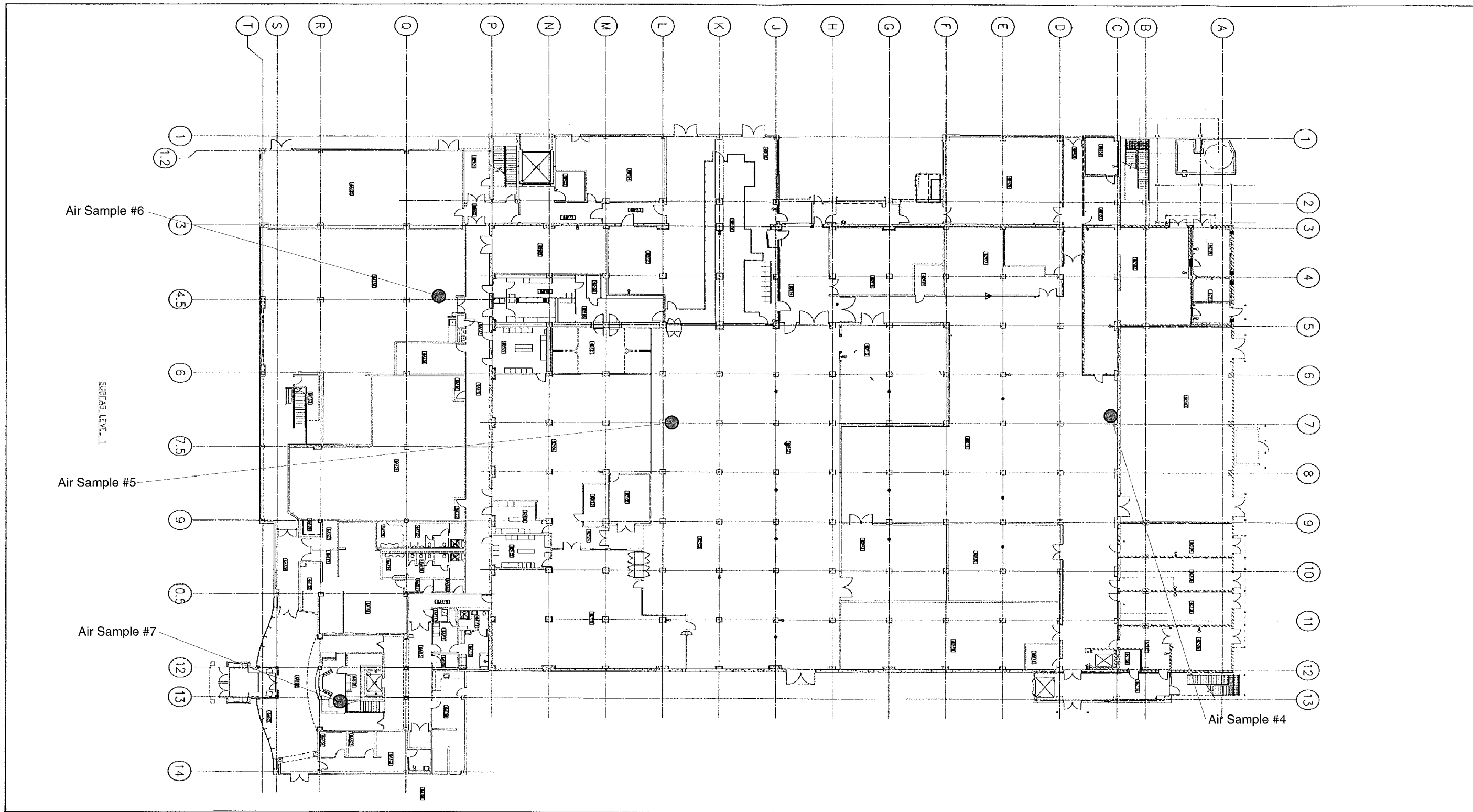
● Air Sample Location

Note: Locations are approximate

Figure 3
Air Sample Locations
Fab 1 Building

Ambient Indoor Air Evaluation
Siltronic Corporation
Portland, Oregon

HAHN AND ASSOCIATES, INC.
Project No. 5237 January 25, 2005



Air Sample #6

Air Sample #5

Air Sample #7

Air Sample #4

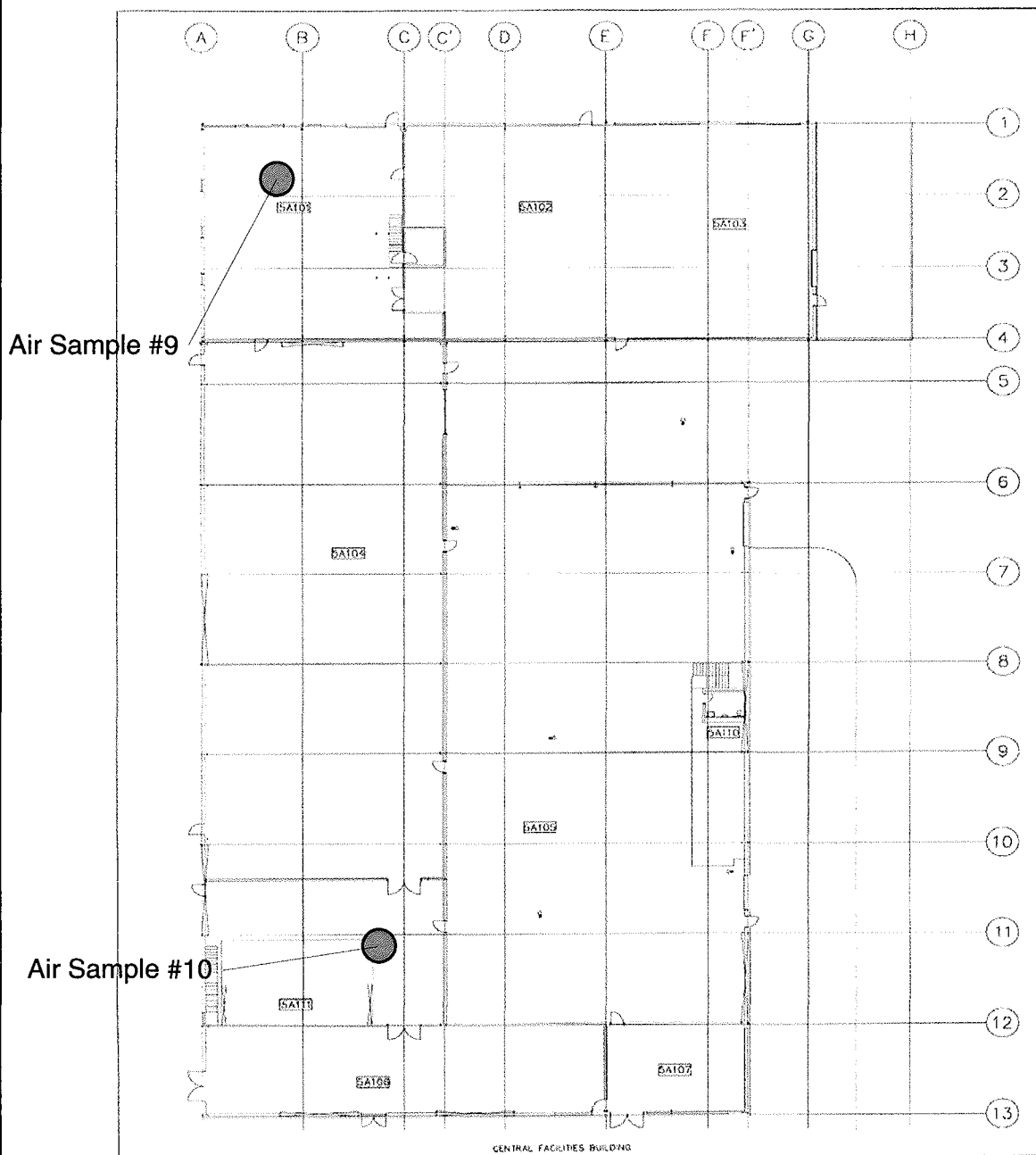
SUBFAS LEVEL 1

LEGEND

● Air Sample Location

Note: Locations are approximate

Figure 4
Air Sample Locations
Fab 2 Building
 Ambient Indoor Air Evaluation
 Siltronic Corporation
 Portland, Oregon
 HAHN AND ASSOCIATES, INC.
 Project No. 5237 January 25, 2005



LEGEND



Air Sample Location

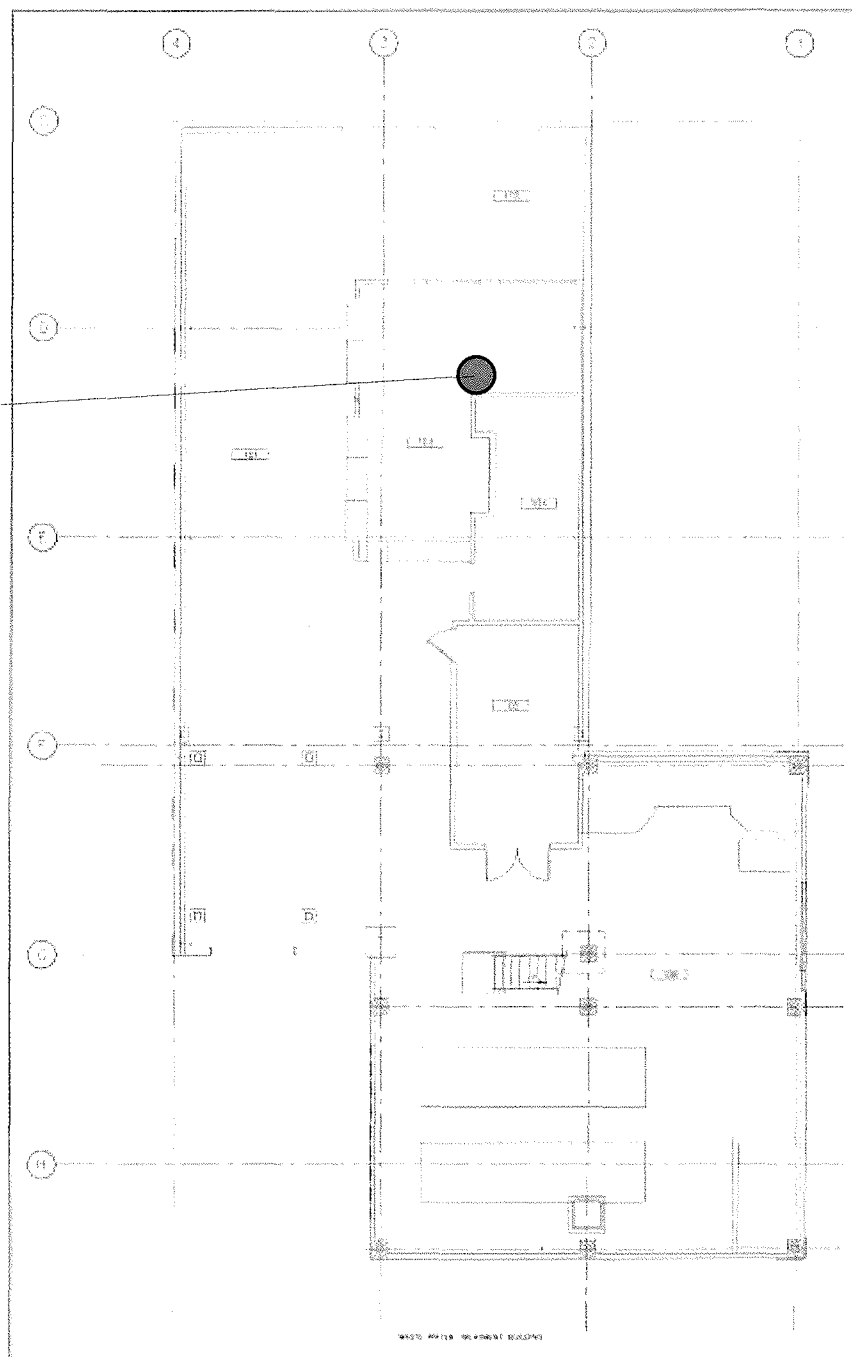
Note: Locations are approximate

Figure 5 Air Sample Locations Central Facilities Building

Ambient Indoor Air Evaluation
Siltronic Corporation
7200 NW Front Avenue
Portland, Oregon

HAHN AND ASSOCIATES, INC.
Project No. 5237 January 25, 2005

Air Sample #11



LEGEND



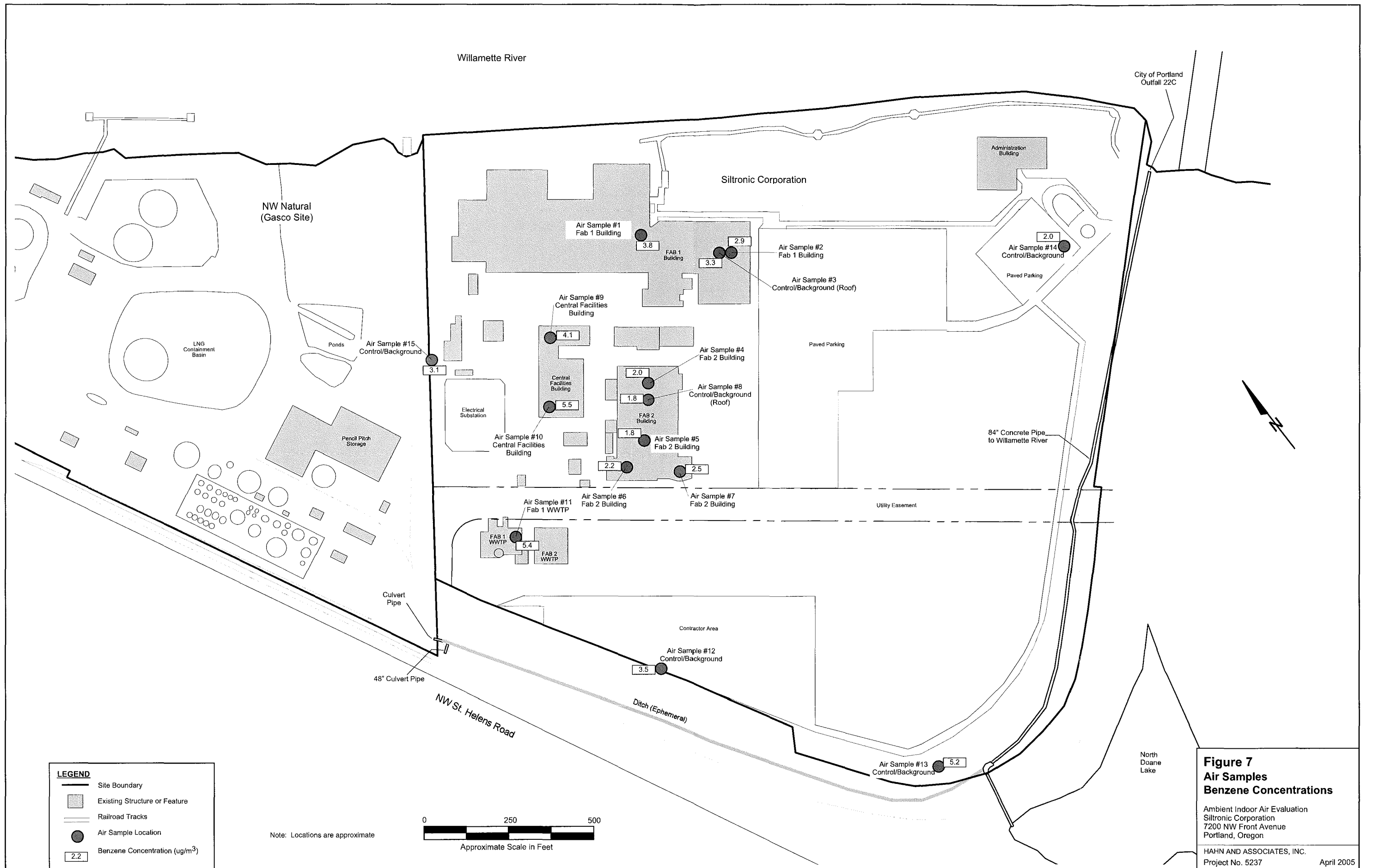
Air Sample Location

Note: Location is approximate

**Figure 6
Air Sample Location
Wastewater Treatment
Plant Building**

Ambient Indoor Air Evaluation
Siltronic Corporation
7200 NW Front Avenue
Portland, Oregon

HAHN AND ASSOCIATES, INC.
Project No. 5237 January 25, 2005



APPENDIX A
Clayton Group Services Report

HAHN AND ASSOCIATES, INC.

SCOEPA00031651

1500 NE Irving Street
Suite 440
Portland, OR 97232
971.244.1200
Fax 971.244.1209



April 5, 2005

Mark Whitson, P.E.
Senior Environmental Engineer
HAHN AND ASSOCIATES, INC.
434 NW 6th Avenue, Suite 203
Portland, Oregon 97209

Clayton Project No. 65-05032.00

Subject: Ambient Indoor Air Evaluation

Dear Mr. Whitson:

Clayton Group Services, Inc. is pleased to present our report for the ambient indoor air evaluation that was performed for Hahn and Associates at the Siltronic Corporation facility located at 7200 NW Front Avenue, Portland, Oregon. The volatile organic compounds sampling was conducted on January 25, 2005, at nine interior locations and six exterior locations around the Siltronic Site. This report contains our findings related to the assessment.

We appreciate the opportunity to provide this service for you. Please call me at 971.244.1200 with any questions or comments about this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott B. Turkle". The signature is fluid and cursive, with the first name "Scott" being more prominent.

Scott B. Turkle, CIH
Senior Consultant
Occupational Health and Safety

ST/st

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- 1 Sample Results
- 2 Sample Conditions

Appendix

Laboratory Data Sheet

1.0 INTRODUCTION

Hahn and Associates, Inc. authorized Clayton Group Services, Inc. (Clayton) to conduct ambient indoor and outdoor air evaluations in and around the current Siltronic Corporation site located at 7200 NW Front Avenue, Portland, Oregon. The air sampling project was conducted for NW Natural at the request of the Oregon Department of Environmental Quality (DEQ). Air sampling was conducted for volatile organic compounds (VOC) including trichloroethene (TCE), its breakdown products, BTEX (benzene, toluene, ethyl benzene and xylene) and naphthalene. Summa canisters were used for typical full shift or 8-Hour Time Weighted Average exposure assessments. The samples were analyzed utilizing EPA Modified Method TO-15 gas chromatography with mass spectrometry. Site access was coordinated with Siltronic staff.

The scope of Clayton's services was described in the proposal letter 05-PDXOHS-001-Revised to Hahn and Associates, which also references the terms and conditions under which the work was performed.

In conducting this assessment, the following tasks were performed:

- Reviewed reports of remedial assessments performed at the Siltronic site and the NW Natural former manufactured gas plant site.
- Utilized the DEQ approved Work Plan for Ambient Indoor Air Evaluation, Revision 1 (November 30, 2004), for sample locations, analysis and reporting procedures.
- Conducted area monitoring for VOC and naphthalene at nine interior locations within different buildings and six exterior locations on rooftops and around the site.
- Measured the weather conditions at each of the exterior locations.

Scott Turkle, Certified Industrial Hygienist, with Clayton Group Services, Inc. conducted the assessment on January 25, 2005. Mark Whitson with Hahn and Associates, provided coordination and assistance. Tom McCue, Myron Burr and Craig Robert Jordan with Siltronic Corporation, also provided site access, coordination and assistance.

2.0 BACKGROUND

The Siltronic Corporation operates a silicon wafer fabricating production facility on river front property adjacent to the Willamette River. Railroad tracks are present on two other sides of the property. A manufactured gas plant oil gasification facility used to operate on property to the west of the facility. Petroleum pipelines currently traverse under portions of the site. The silicon wafer facility uses typical chemicals for this type of industry including isopropyl alcohol for surface cleaning.

3.0 METHODOLOGY

3.1 SAMPLE MONITORING

Summa canisters were set up in pre-approved sample locations at interior building locations, roof top locations and ground level site locations. Stainless steel evacuated (partial vacuum or negative pressure) 6-liter Summa canisters utilize a calibrated precision critical orifice device to slowly collect representative air samples. The Summa canisters were ordered from and analyzed by Air Toxics, Limited. Air Toxics, Limited is an accredited laboratory located in Folsom, California. All Summa canisters were 100% certified and calibrated with matched canister, matched mass flow controller and matched stainless steel sampling cane. They were set for an 8-hour (full work shift) integrated sampling period. The sampling canes were custom ordered to 4.5 foot above the floor or ground to simulate a breathing zone level. The use of matched canes allowed the Summa canisters to be consistent in height while not having to be on table tops, desk tops or other surfaces where they could be knocked off or interfere with building occupants. The top of each cane was designed with an inverted curve downward to reduce the potential for rain, dust or other debris from being improperly entrained into the sample stream.

Summa canisters were placed in the specified locations, according to the DEQ approved locations, directly on the floor or ground in areas not likely to be bumped or disturbed by facility staff. Initial Summa canister vacuum pressure was recorded and monitored until the end of the sample period or pressure equilibrium. In areas with potential impacts or outside wind, the Summa canisters were secured in place with wire or tape. Employees working adjacent to the sample locations were informed of the activity. Site approved identification signs were attached to inform all employees. Routine inspection of the Summa canisters was conducted throughout the sample period. If Summa canister pressure equilibrium was noted prior to the 8-hour sample period, that sample period end time was recorded and the valve closed. At the end of the 8-hour sample period, the final cylinder vacuum pressure was recorded and the valves closed. Chain of custody forms were completed and all samples were maintained under direct supervision or locked until shipped via overnight air to the laboratory.

3.2 WEATHER MONITORING

As requested by DEQ, sampling was scheduled during a low pressure front passing through the region.

Exterior Summa canister locations were subject to prevailing weather conditions. A Brunton Summit Atmospheric Data Center[®] meter was used for wind speed, wind direction, temperature and barometric pressure. The weather conditions for the exterior samples are reported in Table 2.

3.3 LABORATORY ANALYTICAL METHOD

Chain of custody procedures were maintained for the samples. No samples were invalidated. The samples were analyzed utilizing EPA Modified Method TO-15 gas chromatography with mass spectrometry. Laboratory Quality Control and Quality

Assurance standards were conducted and documented. The data was validated and J-Flagged.

4.0 GUIDELINES AND STANDARDS

The following standards and guidelines were utilized for this assessment:

- Oregon Department of Environmental Quality (DEQ) Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites, September 2003, Appendix A: Table of RBCs (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational) and Table J.4: Generic RBCs for Chlorinated Solvents (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational)
- Oregon Department of Consumer & Business Services, Oregon Occupational Safety & Health Division (OR-OSHA), 8-Hour Time Weighted Average Permissible Exposure Limits (PELs)
- US Environmental Protection Agency (EPA) Building Assessment and Survey Evaluation (BASE) database of indoor environmental conditions in buildings
- US National Institute for Occupational Safety and Health (NIOSH), Recommended Exposure Limits (RELs), January 2003
- American Conference of Governmental Industrial Hygienists (ACGIH), 2004 Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs) booklet

5.0 AREA MONITORING RESULTS

The area VOC monitoring results are summarized in Table 1 with full laboratory results included in the Appendix. The Sample Conditions are summarized in Table 2. Many of the samples did not have detectable levels for many of the individual chemicals analyzed per the EPA TO-15 Method.

None of the samples detected levels at or near the Oregon Occupational Safety & Health Division Permissible Exposure Limits. None of the samples detected levels at or near the NIOSH RELs or ACGIH TLV recommended levels.

Benzene was detected above the DEQ RBC level of 1.5 ug/m^3 (micrograms per cubic meter of air) in all samples. The range was rather narrow between 1.8 and 5.5 ug/m^3 . No pattern could be determined between interior and exterior samples or site location.

Trichloroethene was detected at levels above the DEQ RBC of 0.10 ug/m^3 in three samples. The results range from 0.85 ug/m^3 for air sample #4 (Fab 2, Sub Fab, Chemical Prep), 0.58 ug/m^3 for air sample #11 (Fab 1, Waste Water Treatment Control Area) and 0.44 ug/m^3 for air sample #13 (Outside by the Southeast Fence). All of these results are J flagged and the estimated values are below the PQL. A pattern could not be detected in this very narrow range of results.

Naphthalene was detected approaching but below the DEQ RBC of 13 ug/m^3 for air sample #13 (Outside by the Southeast Fence). Sample #13 was at 11 ug/m^3 .

2-propanol (also known as iso-propanol) was found at higher levels in interior samples near production cleaning areas. The levels were well below the OR-OSHA PEL levels. This also indicates that the sampling was properly detecting VOCs that are in use within the building.

6.0 OBSERVATIONS AND DISCUSSION

The building operations proceeded typically continuing throughout the sampling period. All building ventilation systems were operating as usual as reported by the available site staff. Sampling staff followed all procedures for building or specific room entry as requested by the site staff. Entry into certain process rooms required garbing up to protect the cleanliness of the facility for product protection. Isopropyl alcohol solutions were used and observed in use in certain process areas for surface cleaning.

Positive pressure zones within the production buildings (Fab 1 and Fab 2) are designed to be additive as indicated by air flowing outward when doors are open or via door cracks. Outer hallways are slightly higher pressure than the outdoor area. Inner rooms are higher pressure than hallways. Clean rooms must be entered via garb-up rooms with associated increases in air pressure. The added air pressure also tends to reduce or stop the intake of outside air or potentially volatile water contaminates.

Air samples were taken in two non-production based buildings including the Central Facilities and the Fab 1 Waste Water Treatment Control Area. Production requirements do not require positive pressure ventilation in these areas. General ventilation systems with certain localized exhaust ventilation was present. The Central Facilities Compressor Room had large exhaust ventilation fans operating and the room was under slight negative pressure. The Central Facilities Northwest room and Fab 1 Waste Water Treatment Control Area were neutral to the outside. Depending on location, time and system operation, the pressure may be neutral or negative with respect to the outside.

Limited vehicle use is allowed within the fenced-in campus with full employee access and parking allowed within the fenced-in site. The site has active railroad use adjacent to the south fence and busy US Highway 30 just beyond that. The Willamette River on the north side is busy with commercial and private boats. Benzene is commonly present in motor vehicle fuels (boats, trains, cars and trucks) and commonly found in urban areas. The air samples reported by DEQ in an air survey at the Portland Forest Heights Post Office and Portland North Roselawn detected levels ranging from <0.3 to 7.7 ug/m^3 (micrograms per cubic meter of air).

Typical creosote odors believed to be from the adjacent railroad track ties, were noted during sample setup and periodic sample inspection at the outside air sample #12 (south center edge of site, next to fence line, near railroad tracks) and air sample #13 (southeast edge of site, next to fence line, near railroad tracks).

The weather was typical for winter with overcast skies, mild temperatures, calm winds and only a light mist occurred occasionally. Calm winds could reduce the mixing or dilution effect from any potential chemical source. Less wind also tends to hold all sources of air pollution within the river valley.

OR-OSHA has authority for this site and their regulations meet or exceed the US Federal OSHA regulations. Oregon Occupational Safety & Health Division (OR-OSHA), 8-Hour Time Weighted Average Permissible Exposure Limits (PELs) are included since the employees are potentially being exposed to these chemicals in the workplace. PELs are set to protect typical workers in an occupational exposure location. The NIOSH and ACGIH 8-Hour Time Weighted Average recommendations are not regulations but are provided as general industry standards for employee exposures.

The components and the break down by-products of petroleum products are commonly called BTEX for benzene, toluene, ethyl benzene and xylenes. Air sample concentrations consistent with typical urban locations were detected and consistent with the DEQ reported air survey at the Portland Forest Heights Post Office and Portland North Roselawn. Trichloroethene and its breakdown by-products, including 1,1-dichloroethene, vinyl chloride, trans-1, 2-dichloroethene and cis-1, 2-dichloroethene, were low or non-detected.

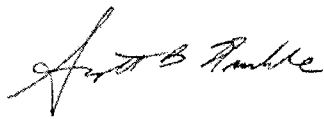
The US EPA Building Assessment and Survey Evaluation (BASE) reports that certain typical chemicals including BTEX are commonly found in buildings. Reported typical levels include: benzene at 1.7 to 61 ug/m³, toluene at 3.8 to 390 ug/m³, m and p-xylenes at 4.0 to 69 ug/m³, o-xylene at 1.1 to 15 ug/m³ and iso-propanol at 3.7 to 570 ug/m³. The DEQ reported air survey at the Portland Forest Heights Post Office and Portland North Roselawn are within similar levels to those reported in the US EPA BASE report and the results of this study.

7.0 CONCLUSIONS

Clayton's conclusions are based on its observations, including results from the Summa canister monitoring. Per the scope of work in the surveyed areas, no occupational safety and health conditions were discovered that appear to violate any of the OR-OSHA or Federal OSHA regulations for 8-Hour Time Weighted Average Permissible Exposure Levels. All identified levels were within the range typical for urban air.

Only two chemicals (benzene and trichloroethene) exceeded the DEQ Risk Based Concentrations (RBC) for inhalation based exposures in air in an occupational scenario. The RBC for benzene is 1.5 ug/m^3 and 0.10 ug/m^3 for trichloroethene.

Report prepared by:



Scott B. Turkle, CIH
Senior Consultant
Occupational Health and Safety

Report reviewed by:



Venetia Runnion, CIH, CSP
Director
Occupational Health and Safety

April 5, 2005

TABLES

TABLE 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-05032.00
January 25, 2005

Sample Location	Freon 12		Freon 114		Chloromethane		Vinyl Chloride		Bromomethane		Chloroethane		Freon 11		1,1-Dichloroethene		Freon 113		1,1-Dichloroethane	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	1.3	6.3	ND	ND	0.46	0.94	ND	ND	0.12 J	0.48 J	0.18 J	0.48	2.6	15	ND	ND	ND	ND	ND	ND
#2 Fab 1, Shipping/Storage	1.2	5.7	ND	ND	0.43	0.88	ND	ND	ND	ND	ND	ND	3.2	18	ND	ND	ND	ND	ND	ND
#3 Roof of Fab 1, Control/Background	1.0	5.2	ND	ND	0.45	0.93	ND	ND	ND	ND	ND	ND	2.0	12	ND	ND	ND	ND	ND	ND
#4 Fab 2, SubFab, Chem Prep	0.65	3.2	ND	ND	0.56	1.2	ND	ND	ND	ND	ND	ND	0.41	2.3	ND	ND	ND	ND	ND	ND
#5 Fab 2, SubFab, Slicing	0.60	3.0	ND	ND	0.46	0.96	ND	ND	ND	ND	ND	ND	0.47	2.6	ND	ND	ND	ND	ND	ND
#6 Fab 2, SubFab, Office	0.69	3.4	ND	ND	0.42	0.86	ND	ND	ND	ND	ND	ND	0.61	3.4	ND	ND	0.12 J	0.91 J	ND	ND
#7 Fab 2, SubFab, Lobby	0.78	3.8	ND	ND	0.63	1.3	ND	ND	ND	ND	ND	ND	0.72	4.0	ND	ND	ND	ND	ND	ND
#8 Roof of Fab 2, Control/Background	0.63	3.1	ND	ND	0.44	0.91	ND	ND	ND	ND	0.27	0.72	0.44	2.5	ND	ND	ND	ND	ND	ND
#9 Central Facilities, NW Room	1.3	6.4	ND	ND	0.40	0.84	ND	ND	ND	ND	ND	ND	3.0	17	ND	ND	0.10 J	0.79 J	ND	ND
#10 Central Facilities, Compressor Room	0.84	4.2	ND	ND	0.45	0.93	ND	ND	ND	ND	ND	ND	1.1	6.3	ND	ND	ND	ND	ND	ND
#11 Fab 1, Waste Water Treatment	0.79	3.9	ND	ND	0.69	1.4	ND	ND	ND	ND	ND	ND	1.0	5.8	ND	ND	ND	ND	ND	ND
#12 Outside, South Center Fence, Control/Background	0.76	3.8	ND	ND	0.46	0.96	ND	ND	ND	ND	ND	ND	0.67	3.8	ND	ND	ND	ND	ND	ND
#13 Outside, Southeast Fence, Control/Background	1.2	5.8	ND	ND	0.44	0.91	ND	ND	ND	ND	ND	ND	1.5	8.4	ND	ND	ND	ND	ND	ND
#14 Outside, Near Guard Shack, Control/Background	0.74	3.6	ND	ND	0.47	0.98	ND	ND	ND	ND	ND	ND	0.78	4.4	ND	ND	ND	ND	ND	ND
#15 Outside, West of CUB, Control/Background	0.90	4.5	ND	ND	0.42	0.88	ND	ND	ND	ND	ND	ND	1.5	8.2	ND	ND	ND	ND	ND	ND
US EPA BASE	--	--	--	--	--	1.3 - 22	--	7.5	--	1.1 - 4.6	--	1.4 - 57	--	1.7 - 170	--	--	--	--	--	--
OR-OSHA 8-Hour TWA-PEL	1.0x10 ⁶	4.95x10 ⁶	1.0x10 ⁶	7.0x10 ⁶	1.0x10 ⁵	2.05x10 ⁵	1000	--	--	--	1.0x10 ⁶	2.6x10 ⁶	1.0x10 ⁶	5.6x10 ⁶	--	--	1.0x10 ⁶	7.6x10 ⁶	1.0x10 ⁵	4.0x10 ⁵
NIOSH 8-Hour TWA-REL	1.0x10 ⁶	4.95x10 ⁶	1.0x10 ⁶	7.0x10 ⁶	--	--	--	--	--	--	--	--	--	--	--	--	1.0x10 ⁶	7.6x10 ⁶	1.0x10 ⁵	4.0x10 ⁵
ACGIH 8-Hour TWA-TLV	1.0x10 ⁶	--	1.0x10 ⁶	--	5.0x10 ⁴	--	1000	--	1000	--	1.0x10 ⁵	--	--	--	5000	--	1.0x10 ⁶	--	1.0x10 ⁵	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	2.6	--	--	--	--	--	--	--	830	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	< 0.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	< 0.1	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
 ppbv: parts per billion-volume
 ug/m³: micrograms per cubic meter
 US EPA: United States Environmental Protection Agency
 BASE: Building Assessment and Survey Evaluation
 OR-OSHA: Oregon Occupational Safety & Health Admin.
 NIOSH: National Institute for Occupational Safety & Health
 ACGIH: American Conf. of Governmental Industrial Hygienists
 TWA: Time-Weighted Average
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 TLV: Threshold Limit Value
 DEQ: Department of Environmental Quality
 RBDM: Risk-Based Decision Making
 ND: Not Detected
 J: Estimated value
 E: Exceeds instrument calibration range
 UJ: Non-detected compound associated with low bias in the CCV
 *: 10-hour TWA

TABLE 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-05032.00
January 25, 2005

Sample Location	cis-1,2-Dichloroethene		Chloroform		1,1,1-Trichloroethane		Carbon Tetrachloride		Benzene		1,2-Dichloroethane		Trichloroethene		1,2-Dichloropropane		cis-1,3-Dichloropropene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	ND	ND	ND	ND	ND	ND	0.10 J	0.63 J	1.2	3.8	ND	ND	ND	ND	ND	ND	ND	ND
#2 Fab 1, Shipping/Storage	ND	ND	0.096 J	0.47 J	ND	ND	0.13 J	0.80 J	0.91	2.9	ND	ND	ND	ND	ND	ND	ND	ND
#3 Roof of Fab 1, Control/Background	ND	ND	ND	ND	ND	ND	0.13 J	0.80 J	1.0	3.3	ND	ND	ND	ND	ND	ND	ND	ND
#4 Fab 2, SubFab, Chem Prep	ND	ND	ND	ND	ND	ND	0.10 J	0.65 J	0.63	2.0	ND	ND	0.16 J	0.85 J	ND	ND	ND	ND
#5 Fab 2, SubFab, Slicing	ND	ND	0.070 J	0.34 J	ND	ND	0.11 J	0.69 J	0.56	1.8	ND	ND	ND	ND	ND	ND	ND	ND
#6 Fab 2, SubFab, Office	ND	ND	ND	ND	ND	ND	0.11 J	0.67 J	0.69	2.2	ND	ND	ND	ND	ND	ND	ND	ND
#7 Fab 2, SubFab, Lobby	ND	ND	ND	ND	ND	ND	0.092 J	0.58 J	0.77	2.5	ND	ND	ND	ND	ND	ND	ND	ND
#8 Roof of Fab 2, Control/Background	ND	ND	ND	ND	ND	ND	0.11 J	0.70 J	0.55	1.8	ND	ND	ND	ND	ND	ND	ND	ND
#9 Central Facilities, NW Room	ND	ND	0.21	1.0	ND	ND	0.12 J	0.78 J	1.3	4.3	ND	ND	ND	ND	ND	ND	ND	ND
#10 Central Facilities, Compressor Room	ND	ND	0.065 J	0.32 J	ND	ND	0.10 J	0.64 J	1.7	5.5	ND	ND	ND	ND	ND	ND	ND	ND
#11 Fab 1, Waste Water Treatment	ND	ND	0.077 J	0.38 J	ND	ND	0.10 J	0.64 J	1.7	5.4	ND	ND	0.11 J	0.58 J	ND	ND	ND	ND
#12 Outside, South Center Fence, Control/Background	ND	ND	ND	ND	ND	ND	0.10 J	0.65 J	1.1	3.5	ND	ND	ND	ND	ND	ND	ND	ND
#13 Outside, Southeast Fence, Control/Background	ND	ND	ND	ND	ND	ND	0.10 J	0.63 J	1.6	5.2	ND	ND	0.083 J	0.44 J	ND	ND	ND	ND
#14 Outside, Near Guard Shack, Control/Background	ND	ND	ND	ND	ND	ND	0.080 J	0.51 J	0.64	2.0	ND	ND	ND	ND	ND	ND	ND	ND
#15 Outside, West of CUB, Control/Background	ND	ND	ND	ND	ND	ND	0.078 J	0.49 J	0.98	3.1	ND	ND	ND	ND	ND	ND	ND	ND
US EPA BASE	--	--	--	0.6 - 8.6	--	1.3 - 52	--	0.9 - 2.1	--	1.7 - 61	--	1.0 - 85	--	0.9 - 90	--	--	--	--
OR-OSHA 8-Hour TWA-PEL	--	--	--	--	3.5x10 ⁵	1.9x10 ⁶	1.0x10 ⁴	--	1000	--	5.0x10 ⁴	--	1.0x10 ⁵	--	7.5x10 ⁴	3.5x10 ⁵	--	--
NIOSH 8-Hour TWA-REL	--	--	--	--	--	--	--	--	100	320	1000	4000	2.5x10 ⁴ *	--	--	--	--	--
ACGIH 8-Hour TWA-TLV	2.0x10 ⁵	--	1.0x10 ⁴	--	3.5x10 ⁵	--	5000	--	500	--	1.0x10 ⁴	--	5.0x10 ⁴	--	7.5x10 ⁴	--	--	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	150	--	--	--	9200	--	--	--	1.5	--	--	--	0.10	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	< 0.10	--	--	--	--	--	--	--	< 0.1 - 1.6	< 0.3 - 5.1	--	--	< 0.1 - 0.12	--	--	--	--	--
Portland North Roselawn (1999-2003)	< 0.10	--	--	--	--	--	--	--	< 0.1 - 2.4	< 0.3 - 7.7	--	--	< 0.1 - 0.12	--	--	--	--	--

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Clayton Project No.: 65-05032.00
January 25, 2005

Sample Location	Toluene		trans-1,3-Dichloropropene		1,1,2-Trichloroethane		Tetrachloroethene		1,2-Dibromoethane (EDB)		Chlorobenzene		Ethyl Benzene		m,p-Xylene		o-Xylene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	16	62	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.87	3.8	2.9	13	1.0	4.4
#2 Fab 1, Shipping/Storage	5.2	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.85	3.7	2.8	12	0.99	4.3
#3 Roof of Fab 1, Control/Background	2.4	9.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.97	4.2	3.1	13	1.0	4.6
#4 Fab 2, SubFab, Chem Prep	2.2	8.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	1.2	0.94	4.1	0.38	1.7
#5 Fab 2, SubFab, Slicing	1.7	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.30	1.3	0.97	4.2	0.36	1.6
#6 Fab 2, SubFab, Office	3.2	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	1.3	1.0	4.4	0.41	1.8
#7 Fab 2, SubFab, Lobby	3.2	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34	1.4	1.1	5.0	0.41	1.8
#8 Roof of Fab 2, Control/Background	1.3	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	1.2	0.83	3.6	0.38	1.6
#9 Central Facilities, NW Room	6.8	26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	4.4	3.5	15	1.2	5.3
#10 Central Facilities, Compressor Room	2.1	8.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.55	2.4	1.9	8.1	0.7	3.0
#11 Fab 1, Waste Water Treatment	4.0	15	ND	ND	ND	ND	0.26	1.8	ND	ND	ND	ND	0.49	2.1	1.7	7.4	0.59	2.6
#12 Outside, South Center Fence, Control/Background	2.0	7.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.47	2.0	1.4	6.2	0.46	2.0
#13 Outside, Southeast Fence, Control/Background	4.3	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	4.6	3.0	13	0.99	4.3
#14 Outside, Near Guard Shack, Control/Background	1.7	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49	2.1	1.6	6.7	0.62	2.7
#15 Outside, West of CUB, Control/Background	2.2	8.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58	2.5	1.6	7.0	0.65	2.8
US EPA BASE	--	3.8 - 390	--	--	--	--	--	0.7 - 56	--	1.5	--	1.1 - 1.4	--	1.2 - 20	--	4.0 - 69	--	1.1 - 15
OR-OSHA 8-Hour TWA-PEL	2.0x10 ⁵	--	--	--	1.0x10 ⁴	4.5x10 ⁴	1.0x10 ⁵	--	2.0x10 ⁴	--	7.5x10 ⁴	3.5x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵
NIOSH 8-Hour TWA-REL	1.0x10 ⁵	3.75x10 ⁵	--	--	1.0x10 ⁴	4.5x10 ⁴	--	--	45	--	--	--	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	--	--	1.0x10 ⁴	--	2.5x10 ⁴	--	--	--	1.0x10 ⁴	--	1.0x10 ⁵	--	1.0x10 ⁵	--	1.0x10 ⁵	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	1600	--	--	--	--	--	1.9	--	0.053	--	--	--	4,200	--	420	--	420
Portland Forest Heights Post Office (1999-2003)	< 0.1 - 7.7	--	--	--	--	--	--	--	--	--	--	--	< 0.1 - 1.6	--	< 0.1 - 6.5	--	< 0.1 - 2.0	--
Portland North Roselawn (1999-2003)	< 0.1 - 7.6	--	--	--	--	--	--	--	--	--	--	--	< 0.1 - 1.8	--	< 0.1 - 7.7	--	< 0.1 - 2.9	--

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Sample Location	Styrene		1,1,2,2-Tetrachloroethane		1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,3-Dichlorobenzene		1,4-Dichlorobenzene		alpha-Chlorotoluene		1,2-Dichlorobenzene		Methylene Chloride	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	0.19	0.79	ND	ND	0.28	1.4	1.0	4.9	ND	ND	0.24	1.4	ND	ND	ND	ND	1.1	3.8
#2 Fab 1, Shipping/Storage	0.16 J	0.70 J	ND	ND	0.25	1.2	0.83	4.1	ND	ND	0.19	1.1	ND	ND	ND	ND	14	48
#3 Roof of Fab 1, Control/Background	0.12 J	0.53 J	ND	ND	0.24	1.2	0.84	4.1	ND	ND	ND	ND	ND	ND	ND	ND	0.96	3.4
#4 Fab 2, SubFab, Chem Prep	0.062 J	0.27 J	ND	ND	0.14 J	0.67 J	0.52	2.6	ND	ND	ND	ND	ND	ND	ND	ND	0.43	1.5
#5 Fab 2, SubFab, Slicing	0.060 J	0.26 J	ND	ND	0.094 J	0.46 J	0.44	2.2	ND	ND	ND	ND	ND	ND	ND	ND	0.22 J	0.75 J
#6 Fab 2, SubFab, Office	0.096 J	0.41 J	ND	ND	0.14 J	0.68 J	0.41	2.0	ND	ND	ND	ND	ND	ND	ND	ND	0.30 J	1.0 J
#7 Fab 2, SubFab, Lobby	0.068 J	0.29 J	ND	ND	0.10 J	0.50 J	0.37	1.8	ND	ND	ND	ND	ND	ND	ND	ND	0.4	1.4
#8 Roof of Fab 2, Control/Background	0.068 J	0.29 J	ND	ND	0.11 J	0.53 J	0.42	2.1	ND	ND	ND	ND	ND	ND	ND	ND	14	50
#9 Central Facilities, NW Room	0.18	0.77	ND	ND	0.24	1.2	0.91	4.5	ND	ND	ND	ND	ND	ND	ND	ND	0.72	2.5
#10 Central Facilities, Compressor Room	0.12 J	0.50 J	ND	ND	0.22	1.1	0.7	3.4	ND	ND	ND	ND	ND	ND	ND	ND	0.41	1.4
#11 Fab 1, Waste Water Treatment	0.091 J	0.39 J	ND	ND	0.19	0.96	0.66	3.2	ND	ND	ND	ND	ND	ND	ND	ND	0.65	2.2
#12 Outside, South Center Fence, Control/Background	0.080 J	0.34 J	ND	ND	0.24	1.2	0.72	3.5	ND	ND	ND	ND	ND	ND	ND	ND	0.37	1.3
#13 Outside, Southeast Fence, Control/Background	0.18	0.76	ND	ND	0.42	2.0	1.2	6.0	ND	ND	ND	ND	ND	ND	ND	ND	0.41	1.4
#14 Outside, Near Guard Shack, Control/Background	0.094 J	0.40 J	ND	ND	0.17	0.86	0.6	0.29	ND	ND	ND	ND	ND	ND	ND	ND	0.88	3.0
#15 Outside, West of CUB, Control/Background	0.081 J	0.34 J	0.051 J	0.35 J	0.18	0.9	0.61	3.0	ND	ND	ND	ND	ND	ND	ND	ND	0.4	1.4
US EPA BASE	--	0.6 - 40	--	--	--	1.2 - 11	--	1.2 - 93	--	--	--	1.2 - 46	--	--	--	1.7	--	1.7 - 29
OR-OSHA 8-Hour TWA-PEL	1.0x10 ⁵	--	5000	3.5x10 ⁴	--	--	--	--	--	--	7.5x10 ⁴	4.5x10 ⁵	1000	5000	--	--	2.5x10 ⁴	--
NIOSH 8-Hour TWA-REL	5.0x10 ⁴	2.15x10 ⁵	1000	7000	2.5x10 ⁴	1.25x10 ⁵	2.5x10 ⁴	1.25x10 ⁵	--	--	--	--	--	--	--	--	--	--
ACGIH 8-Hour TWA-TLV	2.0x10 ⁴	--	1000	--	--	--	--	--	--	--	1.0x10 ⁴	--	1000	--	2.5x10 ⁴	--	5.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	25	--	25	--	--	--	--	--	--	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	< 0.1 - 4.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	< 0.1 - 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Sample Location	1,2,4-Trichlorobenzene		Hexachlorobutadiene		1,3-Butadiene		Acetone		Carbon Disulfide		2-Propanol		trans-1,2-Dichloroethene		2-Butanone (Methyl Ethyl Ketone)		Hexane	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	ND	ND	ND	ND	ND	ND	8.0	19	0.80 J	2.5 J	180 E	440 E	ND	ND	1.6	4.9	0.73 J	2.6 J
#2 Fab 1, Shipping/Storage	ND	ND	ND	ND	0.18 J	0.39 J	14	34	0.22 J	0.70 J	120 E	290 E	ND	ND	2.3	6.9	0.80 J	2.8 J
#3 Roof of Fab 1, Control/Background	ND	ND	ND	ND	ND	ND	14	33	0.72 J	2.2 J	3.7	9.0	ND	ND	2.6	7.6	0.72 J	2.5 J
#4 Fab 2, SubFab, Chem Prep	ND	ND	ND	ND	ND	ND	3.9	9.3	0.082 J	0.26 J	210 E	520 E	ND	ND	0.68 J	2.0 J	0.48 J	1.7 J
#5 Fab 2, SubFab, Slicing	ND	ND	ND	ND	ND	ND	7.6	18	0.20 J	0.64 J	160 E	380 E	ND	ND	0.68 J	2.0 J	0.39 J	1.4 J
#6 Fab 2, SubFab, Office	ND	ND	ND	ND	ND	ND	4.9	12	0.11 J	0.33 J	190 E	470 E	ND	ND	0.85 J	2.5 J	0.59 J	2.1 J
#7 Fab 2, SubFab, Lobby	ND	ND	ND	ND	0.14 J	0.31 J	5.2	12	0.22 J	0.67 J	350 E	860 E	ND	ND	1.1	3.3	0.67 J	2.4 J
#8 Roof of Fab 2, Control/Background	ND	ND	ND	ND	ND	ND	2.0	4.8	0.070 J	0.22 J	13	32	ND	ND	0.45 J	1.3 J	0.40 J	1.4 J
#9 Central Facilities, NW Room	ND	ND	ND	ND	0.18 J	0.39 J	2.5	6.0	0.16 J	0.50 J	27	66	ND	ND	1.2	3.5	1.1	3.8
#10 Central Facilities, Compressor Room	ND	ND	ND	ND	0.16 J	0.36 J	3.0	7.1	0.085 J	0.26 J	2.2	5.1	ND	ND	1.0	3.1	0.87	3
#11 Fab 1, Waste Water Treatment	ND	ND	ND	ND	0.18 J	0.39 J	3.8	9.1	0.077 J	0.24 J	0.76 J	1.9 J	ND	ND	1.3	3.7	1.2	4.1
#12 Outside, South Center Fence, Control/Background	ND	ND	ND	ND	0.20 J	0.43 J	2.4	5.8	0.25 J	0.77 J	0.54 J	1.3 J	ND	ND	0.83 J	2.4 J	0.82 J	2.9 J
#13 Outside, Southeast Fence, Control/Background	0.10 J	0.78 J	ND	ND	0.23 J	0.52 J	2.6	6.1	0.11 J	0.34 J	0.60 J	1.5 J	ND	ND	1.9	5.6	1.4	4.8
#14 Outside, Near Guard Shack, Control/Background	ND	ND	ND	ND	ND	ND	36	86	0.20 J	0.64 J	1.2	3.1	ND	ND	4.2	12	.56 J	2.0 J
#15 Outside, West of CUB, Control/Background	ND	ND	ND	ND	0.16 J	0.35 J	6.2	15	3.0	9.4	1.6	4.0	ND	ND	2.1	6.1	0.84	3
US EPA BASE	--	--	--	--	--	--	--	12 - 240	--	0.8 - 15	--	3.7 - 570	--	--	--	1.4 - 28	--	1.6 - 130
OR-OSHA 8-Hour TWA-PEL	--	--	--	--	1000	2210	1.0x10 ⁶	2.4x10 ⁶	2.0x10 ⁴	--	4.0x10 ⁵	9.8x10 ⁵	--	--	2.0x10 ⁵	5.9x10 ⁵	5.0x10 ⁵	1.8x10 ⁶
NIOSH 8-Hour TWA-REL	--	--	20	240	--	--	2.5x10 ⁵	5.9x10 ⁵	--	--	4.0x10 ⁵	9.8x10 ⁵	--	--	2.0x10 ⁵	5.9x10 ⁵	5.0x10 ⁴	1.8x10 ⁵
ACGIH 8-Hour TWA-TLV	--	--	20	--	2000	--	5.0x10 ⁵	--	1.0x10 ⁴	--	2.0x10 ⁵	--	--	--	2.0x10 ⁵	--	5.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	--	--	--	--	--	--	290	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	0.29 J	0.85 J	0.38 J	1.3 J	ND	ND	ND	ND	2.8	12	ND	ND	ND	ND	ND	ND	0.84 J	4.2 J	22	41
#2 Fab 1, Shipping/Storage	0.26 J	0.76 J	0.30 J	1.0 J	ND	ND	ND	ND	2.9	12	0.089 J	0.36 J	ND	ND	ND	ND	0.78 J	3.8 J	10	19
#3 Roof of Fab 1, Control/Background	0.17 J	0.51 J	0.32 J	1.1 J	ND	ND	ND	ND	4.0	16	ND	ND	ND	ND	ND	ND	0.85	4.2	5.5	10
#4 Fab 2, SubFab, Chem Prep	0.30 J	0.90 J	0.14 J	0.49 J	ND	ND	ND	ND	0.14 J	0.56 J	ND	ND	ND	ND	ND	ND	0.50 J	2.4 J	5.5	10
#5 Fab 2, SubFab, Slicing	0.14 J	0.42 J	0.25 J	0.86 J	ND	ND	ND	ND	0.26 J	1.0 J	ND	ND	ND	ND	ND UJ	ND UJ	0.42 J	2.0 J	7.6	14
#6 Fab 2, SubFab, Office	0.17 J	0.50 J	0.21 J	0.72 J	ND	ND	ND	ND	0.43 J	1.8 J	ND	ND	ND	ND	ND	ND	0.44 J	2.2 J	7.3	14
#7 Fab 2, SubFab, Lobby	0.17 J	0.51 J	0.24 J	0.82 J	ND	ND	ND	ND	0.45 J	1.8 J	ND	ND	ND	ND	ND	ND	0.37 J	1.8 J	17	33
#8 Roof of Fab 2, Control/Background	ND	ND	0.12 J	0.42 J	ND	ND	ND	ND	0.38 J	1.5 J	ND	ND	ND	ND	ND	ND	0.42 J	2.1 J	2.7	5.0
#9 Central Facilities, NW Room	0.27 J	0.81 J	0.40 J	1.4 J	ND	ND	ND	ND	3.7	15	ND	ND	ND	ND	ND	ND	0.89	4.4	5.9	11
#10 Central Facilities, Compressor Room	0.12 J	0.34 J	0.50 J	1.7 J	ND	ND	ND	ND	1.0	4.1	ND	ND	ND	ND	ND	ND	0.65 J	3.2 J	3.7	7.0
#11 Fab 1, Waste Water Treatment	0.36 J	1.1 J	0.50 J	1.7 J	ND	ND	ND	ND	0.73 J	3.0 J	ND	ND	ND	ND	ND	ND	0.71 J	3.5 J	4.6	8.7
#12 Outside, South Center Fence, Control/Background	ND	ND	0.24 J	0.83 J	ND	ND	ND	ND	0.80 J	3.3 J	0.092 J	0.38 J	ND	ND	ND	ND	0.74 J	3.6 J	3.5	6.6
#13 Outside, Southeast Fence, Control/Background	0.098 J	0.29 J	0.45 J	1.5 J	ND	ND	ND	ND	2.8	11	ND	ND	ND	ND	ND	ND	1.6	8.0	4.4	8.3
#14 Outside, Near Guard Shack, Control/Background	0.13 J	0.40 J	0.18 J	0.63 J	ND	ND	ND	ND	2.2	9.2	0.24 J	0.98 J	ND	ND	ND UJ	ND UJ	0.58 J	2.9 J	3.9	7.4
#15 Outside, West of CUB, Control/Background	0.11 J	0.31 J	0.43 J	1.5 J	ND	ND	ND	ND	1.1	4.6	ND	ND	ND	ND	ND UJ	ND UJ	0.64 J	3.1 J	4.4	8.2
US EPA BASE	--	--	--	--	--	--	--	--	--	1.6 - 73	--	--	--	--	--	--	--	1.2 - 11	--	1.5 - 300
OR-OSHA 8-Hour TWA-PEL	2.0x10 ⁵	5.9x10 ⁵	3.0x10 ⁵	1.05x10 ⁶	1.0x10 ⁵	3.6x10 ⁵	--	--	1.0x10 ⁵	4.1x10 ⁵	1.0x10 ⁵	4.1x10 ⁵	--	--	500	5000	--	--	1.0x10 ⁶	1.9x10 ⁶
NIOSH 8-Hour TWA-REL	2.0x10 ⁵	5.9x10 ⁵	3.0x10 ⁵	1.05x10 ⁶	--	--	--	--	5.0x10 ⁴	2.05x10 ⁵	5.0x10 ⁴	2.05x10 ⁵	--	--	500	5000	--	--	1.0x10 ⁶	1.9x10 ⁶
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	1.0x10 ⁵	--	2.0x10 ⁴	--	--	--	5.0x10 ⁴	--	5000	--	--	--	500	--	--	--	1.0x10 ⁶	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	3.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
ppbv: parts per billion-volume
ug/m³: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Survey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Admin.
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conf. of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Department of Environmental Quality
RBDM: Risk-Based Decision Making
ND: Not Detected
J: Estimated value
E: Exceeds instrument calibration range
UJ: Non-detected compound associated with low bias in the CCV
*: 10-hour TWA

TABLE 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-05032.00
January 25, 2005

Sample Location	Methyl tert-butyl ether		Heptane		Cumene		Propylbenzene		Naphthalene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
#1 Fab 1, Office	ND	ND	0.54 J	2.2 J	ND	ND	0.17 J	0.85 J	ND	ND
#2 Fab 1, Shipping/Storage	ND	ND	0.66 J	2.7 J	ND	ND	0.16 J	0.76 J	ND	ND
#3 Roof of Fab 1, Control/Background	ND	ND	0.47 J	1.9 J	0.077 J	0.38 J	0.18 J	0.87 J	ND	ND
#4 Fab 2, SubFab, Chem Prep	ND	ND	0.27 J	1.1 J	0.083 J	0.41 J	0.13 J	0.62 J	ND	ND
#5 Fab 2, SubFab, Slicing	ND	ND	0.27 J	1.1 J	ND	ND	0.11 J	0.53 J	ND	ND
#6 Fab 2, SubFab, Office	ND	ND	0.33 J	1.4 J	ND	ND	0.086 J	0.42 J	ND	ND
#7 Fab 2, SubFab, Lobby	ND	ND	0.29 J	1.2 J	ND	ND	0.084 J	0.41 J	ND	ND
#8 Roof of Fab 2, Control/Background	ND	ND	0.22 J	0.91 J	ND	ND	ND	ND	ND	ND
#9 Central Facilities, NW Room	ND	ND	0.55 J	2.3 J	0.19 J	0.94 J	0.18 J	0.91 J	ND	ND
#10 Central Facilities, Compressor Room	ND	ND	0.43 J	1.7 J	0.16 J	0.79 J	0.22 J	1.1 J	ND	ND
#11 Fab 1, Waste Water Treatment	ND	ND	0.45 J	1.8 J	0.13 J	0.66 J	0.16 J	0.78 J	0.59 J	3.1 J
#12 Outside, South Center Fence, Control/Background	ND	ND	0.42 J	1.7 J	0.11 J	0.54 J	0.17 J	0.84 J	0.85	4.4
#13 Outside, Southeast Fence, Control/Background	ND	ND	0.53 J	2.2 J	0.26 J	1.3 J	0.32 J	1.6 J	2.2	11
#14 Outside, Near Guard Shack, Control/Background	ND	ND	0.49 J	2.0 J	0.072 J	0.35 J	0.12 J	0.61 J	ND	ND
#15 Outside, West of CUB, Control/Background	ND	ND	0.52 J	2.1 J	0.16 J	0.80 J	0.21 J	1.0 J	ND	ND
US EPA BASE	--	2.6 - 19	--	2.1 - 36	--	--	--	--	--	2.2 - 410
OR-OSHA 8-Hour TWA-PEL	--	--	5.0x10 ⁵	2.0x10 ⁶	5.0x10 ⁴	2.45x10 ⁵	--	--	1.0x10 ⁴	5.0x10 ⁴
NIOSH 8-Hour TWA-REL	--	--	8.5x10 ⁴	3.5x10 ⁵	5.0x10 ⁴	2.45x10 ⁵	--	--	1.0x10 ⁴	5.0x10 ⁴
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	4.0x10 ⁵	--	5.0x10 ⁴	--	--	--	1.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	580	--	13
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	< 0.0003 - 0.0086
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	< 0.0003 - 0.0125

Notes:
ppbv: parts per billion-volume
ug/m³: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Survey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Admin.
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conf. of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Department of Environmental Quality
RBDM: Risk-Based Decision Making
ND: Not Detected
J: Estimated value
E: Exceeds instrument calibration range
UJ: Non-detected compound associated with low bias in the CCV
*: 10-hour TWA

TABLE 2
SAMPLE CONDITIONS
AT
SILTRONIC SITE
CLAYTON PROJECT NO. 65-05032.00
JANUARY 25, 2005

Sample	Location	Time On	Summa Vacuum psig	Time Off	Summa Vacuum psig	Ambient Conditions
1	Fab 1, Security, near east wall by fire alarm panel	8:23 am	29.8	4:23 pm	7.3	Positive pressure to outside. At 12:45 pm, 75.9 °F, 29.87 in Hg.
2	Fab 1, Shipping / Storage, northeast corner, near office	7:58 am	29.2	3:58 pm	8.7	Positive pressure to outside. At 12:51 pm, 74.4 °F, 29.86 in Hg.
3	Outdoors, Control / Background, on roof of Fab 1, ~10 foot west of air intake grill, on process water pipe	8:11 am	31.4	4:11 pm	6.3	At 12:58 pm, 63.3 °F, 29.84 in Hg, wind from south at 0 to 0.4 mph. At 4:06 pm, 67.7 °F, 29.84 in Hg, wind from south at 0 to 2.5 mph..
4	Fab 2, Sub Fab Level 1, Process Area	11:20 am	31.8	7:20 pm	6.8	Positive pressure zoned from Change room, to hall, to outside. At 3:37 pm, 70.3 °F, 29.84 in Hg. At 7:20 pm, 72.8 °F, 29.80 in Hg.
5	Fab 2, Sub Fab Level 1, Process Area, Grid L-7	11:18 am	30.3	7:18 pm	7.2	Positive pressure zoned from Change room, to hall, to outside. At 3:30 pm, 70.8 °F, 29.84 in Hg. At 7:18 pm, 72.1 °F, 29.81 in Hg.
6	Fab 2, Sub Fab Level 1, Office area, near Post R4.5	10:59 am	30.0	6:59 pm	6.8	Positive pressure zoned from hall, to outside. At 3:18 pm, 68.9 °F, 29.84 in Hg. At 6:59 pm, 69.9 °F, 29.81 in Hg.
7	Fab 2, Sub Fab Level 1, Lobby Security area, north by stairs.	10:51 am	31.7	6:51 pm	5.8	Positive pressure to outside. At 3:12 pm, 68.5 °F, 29.84 in Hg. At 6:51 pm, 67.1 °F, 29.81 in Hg.
8	Outdoors, Control / Background, roof of Fab 2, by air handler unit #SEF-7-3	10:33 am	28.8	6:33 pm	6.1	At 3:00 pm, 62.4 °F, 29.78 in Hg, wind from the east at 0 to 8 mph.
9	In Central Facilities Building, ground floor, between Chiller # 10 & #16.	9:05 am	28.3	1:32 pm Filled.	0.5	At 1:26 pm, 66.0 °F, 29.85 in Hg.
10	In Central Facilities Building, ground floor, Compressor Room.	9:22 am	28.4	5:22 pm	6.4	At 1:40 pm, 66.7 °F, 29.85 in Hg. At 5:22 pm, 66.3 °F, 29.82 in Hg.

TABLE 2 - CONTINUED
SAMPLE CONDITIONS
AT
SILTRONIC SITE
CLAYTON PROJECT NO. 65-05032.00
JANUARY 25, 2005

Sample	Location	Time On	Summa Vacuum psig	Time Off	Summa Vacuum psig	Ambient Conditions
11	Fab 1 Wastewater Treatment Plant Building Control Area.	8:39 am	29.8	4:39 pm	6.4	At 2:00 pm, 67.4 °F, 29.84 in Hg. At 4:39 pm, 64.7 °F, 29.83 in Hg.
12	Outdoors, Control / Background, south center edge of site, at grade, next to fence line, near railroad tracks.	9:53 am	28.4	5:53 pm	6.7	At 2:18 pm, 57.7 °F, 29.84 in Hg, wind from east at 0 to 8 mph. At 5:53 pm, 46.9 °F, 29.82 in Hg, wind at 0 mph.
13	Outdoors, Control / Background, southeast edge of site, at grade, next to fence line, near railroad tracks.	9:57 am	31.5	2:27 pm Filled.	0	At 2:27 pm, 55.0 °F, 29.84 in Hg, wind at 0 mph.
14	Outdoors, Control / Background, between Guard Shack and Administration Building #1, at grade.	10:12 am	29.0	6:12 pm	6.2	At 2:42 pm, 61.5 °F, 29.85 in Hg, wind from east at 0 to 3 mph. At 6:12 pm, 48.5 °F, 29.82 in Hg, wind at 0 mph.
15	Outdoors, Control / Background, due west of Central Utility Building, by fence.	8:54 am	28.8	4:54 pm	6.7	At 1:12 pm, 57.2 °F, 29.86 in Hg, wind from east at 0 to 2.7 mph. At 4:54 pm, 52.3 °F, 29.84 in Hg, wind at 0 mph.

psig is pounds per square inch gauge

°F is degrees Fahrenheit

in Hg is inches of mercury pressure

mph is miles per hour, wind speed

Filled is when Summa canister is full of sample before the 8-hour sample time is completed.

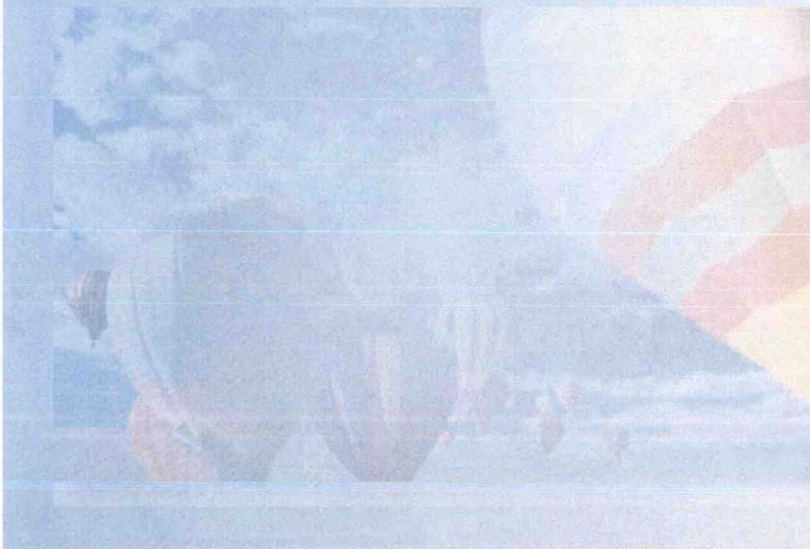
APPENDIX

LABORATORY DATA SHEETS

eCVP

**Electronic Comprehensive
Validation Package**

WO# 0502032



Air Toxics Ltd.

180 Blue Ravine Road Ste. B
Folsom, CA 95630
Phone: 916/985-1000
Fax: 916/985-1020
eMail: atfl@airtoxics.com
www.airtoxics.com



AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 0502032

	Page Nos.	
	From	To
1. Work Order Cover Page & Laboratory Narrative	1	5
2. Sample Results and Raw Data (Organized by Sample)	6	594
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results+ Raw Data)	595	616
b. Surrogate Recover Summary Form (If Applicable)	617	618
c. Internal Standard Summary Form (If Applicable)	619	621
d. Duplicate Results Summary Sheet	622	623
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data)	--	--
f. Initial Calibration Data (Summary Sheet + Raw Data)	624	820
g. MDL Study (If Applicable)	821	832
h. Continuing Calibration Verification Data (Summary Sheet	833	898
i. Second Source LCS(Summary + Raw Data)	899	1,002
j. Extraction Logs	--	--
k. Instrument Run Logs/Software Verification	1,003	1,006
l. GC/MS Tune (Results + Raw Data)	1,007	1,036
4. Shipping/Receiving Documents		
a. Login Receipt Summary Sheet	1,037	1,038
b. Chain-of-Custody Records	1,039	1,042
c. Sample Log-In Sheet	1,043	1,044
d. Misc Shipping/Receiving Records (list of individual records)		
<u>Sample Receipt Discrepancy Report</u>	--	--
5. Other Records (describe or list)		
a. <u>Manual Spectral Defense</u>	--	--
b. <u>Manual Integrations</u>	--	--
c. <u>Manual Calculations</u>	--	--
d. <u>Canister Dilution Factors</u>	1,045	1,047
e. <u>Laboratory Corrective Action Request</u>	--	--
f. <u>CAS Number Reference</u>	1,048	1,049
g. <u>Variance Table</u>	--	--
h. <u>Canister Certification</u>	1,050	1,094
i. <u>Data Review Check Sheet</u>	1,095	1,095

Comments:

Completed by:

Barbara Jo Pappas

(Signature)

Barbara Jo Pappas / Document Control

(Print Name & Title)

2/15/05

(Date)

SCOEPA00031672



AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0502032

Work Order Summary

CLIENT: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

BILL TO: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

PHONE: 971-244-1205

P.O. #

FAX: 971-244-1209

PROJECT # 65-05032.00 Hahn-Siltronics

DATE RECEIVED: 01/28/2005

CONTACT: Kelly Buettner

DATE COMPLETED: 02/11/2005

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	#1, Fab 1, Office	Modified TO-15	8.0 "Hg
02A	#2, Fab 1, Shipping/Storage	Modified TO-15	7.5 "Hg
03A	#3, Roof of Fab 1	Modified TO-15	6.0 "Hg
04A	#4, Fab 2, SubFab, Chem Prep	Modified TO-15	6.5 "Hg
05A	#5, Fab 2, SubFab, Slicing	Modified TO-15	7.0 "Hg
06A	#6, Fab 2, SubFab, Office	Modified TO-15	7.5 "Hg
07A	#7, Fab 2, SubFab, Lobby	Modified TO-15	7.0 "Hg
08A	#8, Roof of Fab 2	Modified TO-15	6.5 "Hg
09A	#9, Central Facilities Bldg, NW Rm	Modified TO-15	2.0 "Hg
09AA	#9, Central Facilities Bldg, NW Rm Duplicate	Modified TO-15	2.0 "Hg
10A	#10, Central Facilities Bldg, Compressor Rm	Modified TO-15	6.5 "Hg
11A	#11, Fab 2, Waste Water Treatment	Modified TO-15	6.5 "Hg
12A	#12, Outside, South Center Fence	Modified TO-15	6.0 "Hg
13A	#13, Outside, Southeast Fence	Modified TO-15	0.4 psi
14A	#14, Outside, near Guard Shack	Modified TO-15	5.5 "Hg
15A	#15, Outside, West of CUB	Modified TO-15	5.5 "Hg
16A	Lab Blank	Modified TO-15	NA

Continued on next page

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0502032

Work Order Summary

CLIENT: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

BILL TO: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

PHONE: 971-244-1205

P.O. #

FAX: 971-244-1209

PROJECT # 65-05032.00 Hahn-Siltronics

DATE RECEIVED: 01/28/2005

CONTACT: Kelly Buettner

DATE COMPLETED: 02/11/2005

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
16B	Lab Blank	Modified TO-15	NA
16C	Lab Blank	Modified TO-15	NA
17A	CCV	Modified TO-15	NA
17B	CCV	Modified TO-15	NA
17C	CCV	Modified TO-15	NA
18A	LCS	Modified TO-15	NA
18B	LCS	Modified TO-15	NA
18C	LCS	Modified TO-15	NA

CERTIFIED BY:

Laboratory Director

DATE: 02/11/05

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- A1 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Clayton Group Services
Workorder# 0502032

Fifteen 6 Liter Summa Special (100% Certified) samples were received on January 28, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Blank and standards	Zero air	Nitrogen
Dilutions for initial calibration	Dynamic dilutions or static using canisters.	Syringe dilutions may also be utilized.
BFB acceptance criteria	CLP protocol	SW-846 protocol
Daily Calibration	+/- 30% Difference	<= 30% Difference with four allowed out up to <=40%.; flag and narrate outliers
ICAL %RSD acceptance criteria	+/- 30% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample	Date Analyzed	Sample Extract	Sample Condition
					Holding Time (Days)		Holding Time (Days)	
#1, Fab 1, Office	0502032-01A	1/25/2005	1/28/2005	NA	16	2/10/2005	NA	Good
#2, Fab 1, Shipping/Storage	0502032-02A	1/25/2005	1/28/2005	NA	16	2/10/2005	NA	Good
#3, Roof of Fab 1	0502032-03A	1/25/2005	1/28/2005	NA	16	2/10/2005	NA	Good
#4, Fab 2, SubFab, Chem	0502032-04A	1/25/2005	1/28/2005	NA	16	2/10/2005	NA	Good
#5, Fab 2, SubFab, Slici	0502032-05A	1/25/2005	1/28/2005	NA	17	2/11/2005	NA	Good
#6, Fab 2, SubFab, Office	0502032-06A	1/25/2005	1/28/2005	NA	14	2/ 8/2005	NA	Good
#7, Fab 2, SubFab, Lobby	0502032-07A	1/25/2005	1/28/2005	NA	14	2/ 8/2005	NA	Good
#8, Roof of Fab 2	0502032-08A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#9, Central Facilities Bldg	0502032-09A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#9, Central Facilities Bldg	0502032-09AA	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#10, Central Facilities Bldg	0502032-10A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#11, Fab 2, Waste Water	0502032-11A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#12, Outside, South Center	0502032-12A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#13, Outside, Southeast F	0502032-13A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#14, Outside, near Guard S	0502032-14A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
#15, Outside, West of CU	0502032-15A	1/25/2005	1/28/2005	NA	15	2/ 9/2005	NA	Good
Lab Blank	0502032-16A	NA	NA	NA	NA	2/ 8/2005	NA	Good
Lab Blank	0502032-16B	NA	NA	NA	NA	2/ 9/2005	NA	Good
Lab Blank	0502032-16C	NA	NA	NA	NA	2/10/2005	NA	Good
CCV	0502032-17A	NA	NA	NA	NA	2/ 7/2005	NA	Good
CCV	0502032-17B	NA	NA	NA	NA	2/ 9/2005	NA	Good
CCV	0502032-17C	NA	NA	NA	NA	2/10/2005	NA	Good
LCS	0502032-18A	NA	NA	NA	NA	2/ 8/2005	NA	Good
LCS	0502032-18B	NA	NA	NA	NA	2/ 9/2005	NA	Good
LCS	0502032-18C	NA	NA	NA	NA	2/10/2005	NA	Good

0005

SCOEP00031677

Sample Results and Raw Data

0006

SCOEPA00031678

AIR TOXICS LTD.

SAMPLE NAME: #1, Fab 1, Office

ID#: 0502032-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021016	Date of Collection:	1/25/05
Dil. Factor:	1.83	Date of Analysis:	2/10/05 08:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	1.3	0.90	6.3
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.18	0.46	0.38	0.94
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
Bromomethane	0.18	0.12 J	0.71	0.48 J
Chloroethane	0.18	0.18 J	0.48	0.48
Freon 11	0.18	2.6	1.0	15
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Carbon Tetrachloride	0.18	0.10 J	1.2	0.63 J
Benzene	0.18	1.2	0.58	3.8
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
Toluene	0.18	16	0.69	62
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	0.87	0.79	3.8
m,p-Xylene	0.18	2.9	0.79	13
o-Xylene	0.18	1.0	0.79	4.4
Styrene	0.18	0.19	0.78	0.79
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	0.28	0.90	1.4
1,2,4-Trimethylbenzene	0.18	1.0	0.90	4.9
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	0.24	1.1	1.4
alpha-Chlorotoluene	0.18	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
Methylene Chloride	0.37	1.1	1.3	3.8
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Acetone	0.92	8.0	2.2	19
Carbon Disulfide	0.92	0.80 J	2.8	2.5 J

AIR TOXICS LTD.

SAMPLE NAME: #1, Fab 1, Office

ID#: 0502032-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021016	Date of Collection:	1/25/05
Dil. Factor:	1.83	Date of Analysis:	2/10/05 08:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.92	180 E	2.2	440 E
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	1.6	2.7	4.9
Hexane	0.92	0.73 J	3.2	2.6 J
Tetrahydrofuran	0.92	0.29 J	2.7	0.85 J
Cyclohexane	0.92	0.38 J	3.1	1.3 J
1,4-Dioxane	0.92	Not Detected	3.3	Not Detected
Bromodichloromethane	0.92	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	0.92	2.8	3.7	12
2-Hexanone	0.92	Not Detected	3.7	Not Detected
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
Bromoform	0.92	Not Detected	9.4	Not Detected
4-Ethyltoluene	0.92	0.84 J	4.5	4.2 J
Ethanol	0.92	22	1.7	41
Methyl tert-butyl ether	0.92	Not Detected	3.3	Not Detected
Heptane	0.92	0.54 J	3.7	2.2 J
Cumene	0.92	Not Detected	4.5	Not Detected
Propylbenzene	0.92	0.17 J	4.5	0.85 J
Naphthalene	0.92	Not Detected	4.8	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021016.d
Lab Smp Id: 0502032-01A
Inj Date : 10-FEB-2005 20:08
Operator : nk
Smp Info : 500ml can#33916
Misc Info : 8.0"Hg-5psi Retec
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 19:17 nkhan
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	==	=====	=====	=====	=====	=====

* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	425015	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	325221			26.96- 126.96	76.52
16.331	16.331	(1.000)	49	769623			126.50- 226.50	181.08

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	1992393	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	343718			0.00- 67.73	17.25

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1404351	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	850628			9.26- 109.26	60.57

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
17.214	17.214	(1.054)	65	948649	10.8372	10.837	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	423719			0.17- 100.17	44.67

\$ 45 Toluene-d8						CAS #: 2037-26-5		
19.893	19.893	(1.118)	98	1628017	9.57771	9.578	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	204662			0.00- 61.87	12.57

0009

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1185000			21.49- 121.49	72.79	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.953	(1.082)	174	762382	10.5088	10.509	80.00- 120.00	100.00	
23.952	23.953	(1.082)	95	1157339			102.12- 202.12	151.81	
23.952	23.953	(1.082)	176	729499			47.05- 147.05	95.69	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	239366	0.69481	1.272	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	79860			0.00- 82.65	33.36	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	24752	0.24921	0.4561	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	8028			0.00- 84.65	32.43	

8 Bromomethane						CAS #: 74-83-9			
9.731	9.731	(0.596)	94	5960	0.06815	0.1247	80.00- 120.00	100.00(a)	
9.703	9.731	(0.594)	96	6709			41.62- 141.62	112.57	

9 Chloroethane						CAS #: 75-00-3			
10.200	10.228	(0.625)	64	5117	0.09878	0.1808	80.00- 120.00	100.00(a)	
10.228	10.228	(0.626)	66	4239			0.00- 83.15	82.84	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	434543	1.45058	2.654	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	282064			14.29- 114.29	64.91	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	504850	12.0070	21.973	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	109720			0.00- 76.71	21.73	
12.050	12.050	(0.738)	46	188933			0.00- 90.17	37.42	

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	985822	4.40187	8.055	80.00- 120.00	100.00	
12.851	12.824	(0.787)	58	259280			0.00- 78.78	26.30	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	20813977	98.3265	179.94	80.00- 120.00	100.00(A)	
13.238	13.238	(0.811)	43	3875436			0.00- 69.75	18.62	
13.238	13.238	(0.811)	59	706513			0.00- 53.72	3.39	

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	121383	0.43638	0.7986	80.00- 120.00	100.00(a)	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	52906	0.59695	1.092	80.00- 120.00	100.00	

0010

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
20 Methylene Chloride (continued)									
13.735	13.735	(0.841)	49	83754			96.36-	196.36	158.31
13.735	13.735	(0.841)	51	24580			0.00-	93.42	46.46
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	66823	0.39790	0.7282	80.00-	120.00	100.00(a)
14.563	14.563	(0.892)	43	70795			15.23-	115.23	105.94
14.563	14.563	(0.892)	86	10067			0.00-	65.23	15.07
28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	41869	0.90217	1.651	80.00-	120.00	100.00
15.972	15.972	(0.978)	43	230571			1029.22-	1129.22	550.70
15.972	15.972	(0.978)	57	16830			0.00-	89.21	40.20
23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	20354	0.15805	0.2892	80.00-	120.00	100.00(a)
16.331	16.331	(1.000)	71	10471			0.00-	84.14	51.44
16.358	16.331	(1.002)	72	7021			0.00-	86.54	34.49
31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	19123	0.20594	0.3769	80.00-	120.00	100.00(a)
16.662	16.662	(1.020)	56	61732			93.37-	193.37	322.82
16.662	16.662	(1.020)	41	41017			30.80-	130.80	214.49
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	8314	0.05447	0.09969	80.00-	120.00	100.00(a)
16.883	16.883	(1.034)	117	10432			61.49-	161.49	125.48
35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	185656	0.64207	1.175	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	34893			0.00-	72.07	18.79
37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	49824	0.29511	0.5400	80.00-	120.00	100.00(a)
17.435	17.435	(0.980)	57	23766			1.42-	101.42	47.70
17.435	17.435	(0.980)	100	4821			0.00-	66.93	9.68
44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	290964	1.55786	2.851	80.00-	120.00	100.00
19.727	19.727	(1.109)	58	105239			0.00-	87.49	36.17
19.727	19.727	(1.109)	85	49101			0.00-	66.91	16.88
46 Toluene						CAS #: 108-88-3			
20.003	20.004	(1.124)	91	2981145	8.99919	16.468	80.00-	120.00	100.00
20.003	20.004	(1.124)	92	1820704			12.22-	112.22	61.07

0011

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	FINAL	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====
56 Ethyl Benzene						CAS #: 100-41-4		
22.268	22.268	(1.006)	106	55116	0.47801	0.8748	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	178760			294.68- 394.68	324.33

57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	224776	1.59391	2.917	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	501394			168.06- 268.06	223.06

58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	63307	0.55124	1.009	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	144102			189.62- 289.62	227.62

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	18109	0.10186	0.1864	80.00- 120.00	100.00
23.096	23.096	(1.044)	78	20949			7.14- 107.14	115.68

65 Propylbenzene						CAS #: 103-65-1		
24.284	24.284	(1.097)	91	36145	0.09421	0.1724	80.00- 120.00	100.00(a)
24.284	24.284	(1.097)	120	4864			0.00- 69.13	13.46

66 4-Ethyltoluene						CAS #: 622-96-8		
24.422	24.450	(1.104)	105	141160	0.46131	0.8442	80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	37582			0.00- 75.29	26.62

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	42114	0.15513	0.2839	80.00- 120.00	100.00
24.560	24.560	(1.110)	120	15812			0.00- 89.72	37.55

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	142454	0.54851	1.004	80.00- 120.00	100.00
25.195	25.195	(1.139)	120	51553			0.00- 87.12	36.19

71 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.941	25.941	(1.172)	146	25607	0.13205	0.2416	80.00- 120.00	100.00
25.941	25.941	(1.172)	148	17592			12.91- 112.91	68.70
25.941	25.941	(1.172)	111	17537			0.00- 90.99	68.49

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7021016.d
Lab Smp Id: 0502032-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk

Calibration Date: 10-FEB-2005
Calibration Time: 00:57

Level: LOW
Sample Type: AIR

Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 8.0"Hg-5psi Retec

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	425015	-8.60
38 1,4-Difluorobenze	2172345	1303407	3041283	1992393	-8.28
54 Chlorobenzene-d5	1516792	910075	2123509	1404351	-7.41

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd7.i/7-10feb.b/7021016.d
Report Date: 11-Feb-2005 17:17

Page 1

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-10feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-01A	
Level: LOW	Operator: nk
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 8.0"Hg-5psi Retec	

SURROGATE COMPOUND	CONC	CONC	%	LIMITS
	ADDED	RECOVERED	RECOVERED	
	PPBV	PPBV		
\$ 34 1,2-Dichloroethane	10.000	10.837	108.37	70-130
\$ 45 Toluene-d8	10.000	9.578	95.78	70-130
\$ 63 Bromofluorobenzene	10.000	10.509	105.09	70-130

0014

SCOEP A00031686

Date : 10-FEB-2005 20:08

Client ID:

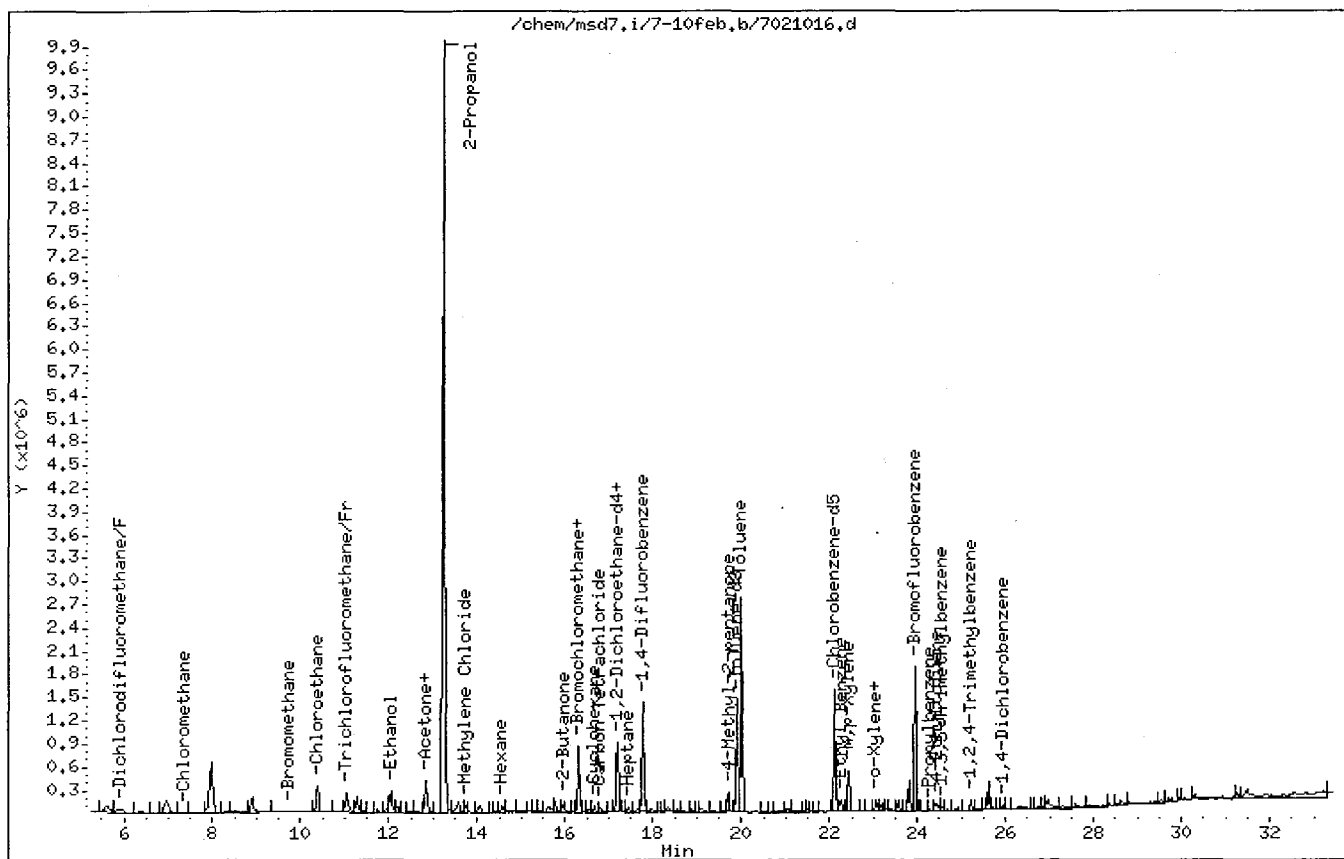
Instrument: msd7.i

Sample Info: 500ml can#33916

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0015

SCOEP00031687

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 2

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

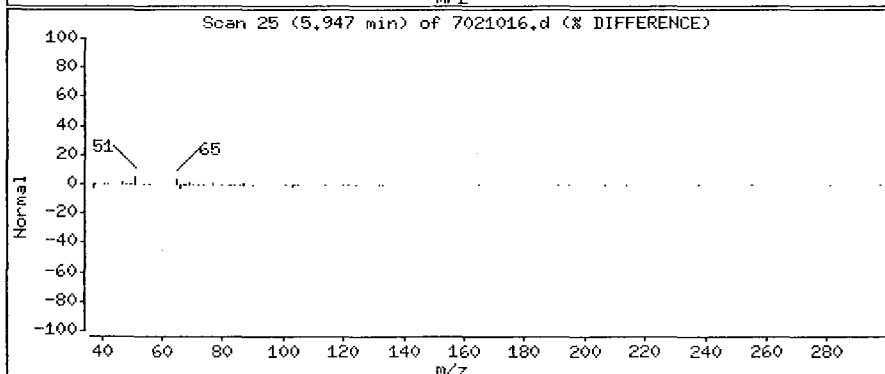
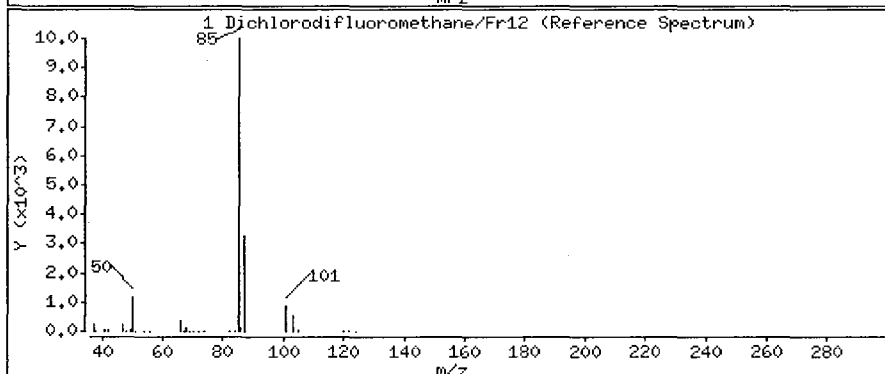
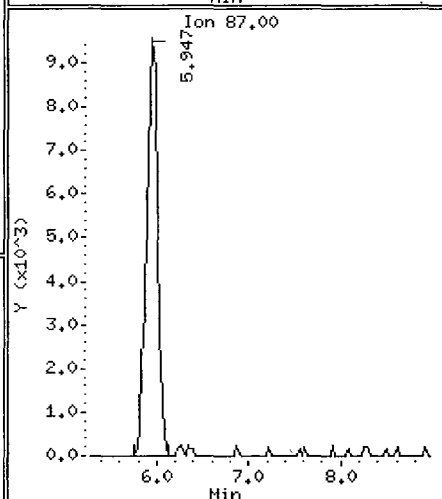
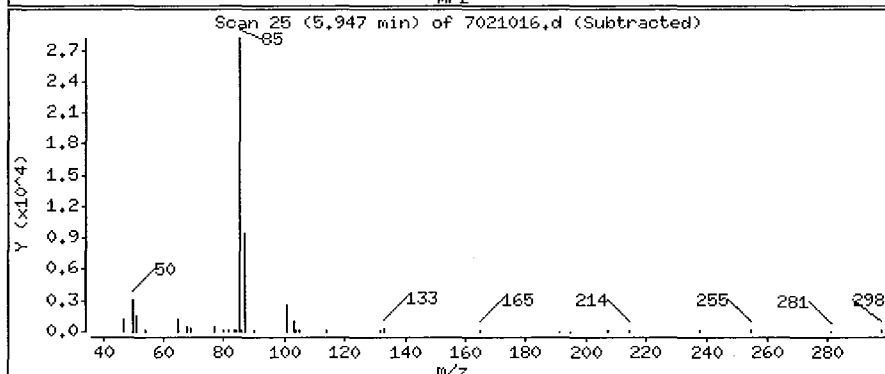
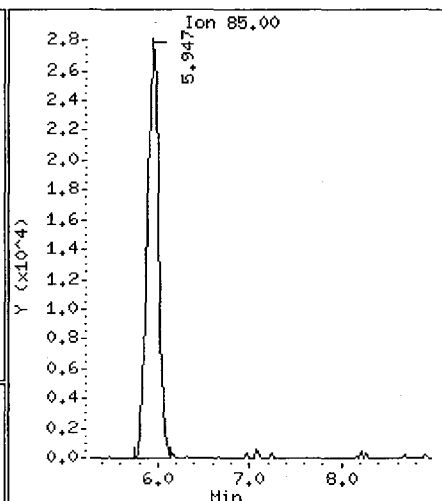
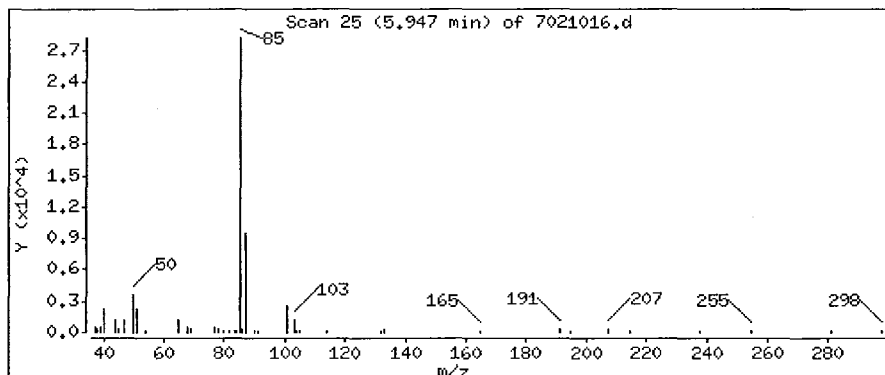
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.272 PPBW



0016

SCOEPAA00031688

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 3

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

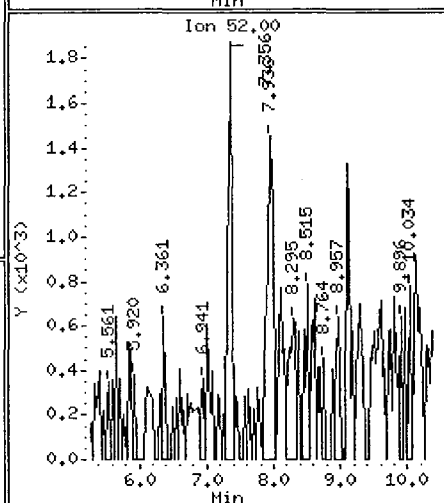
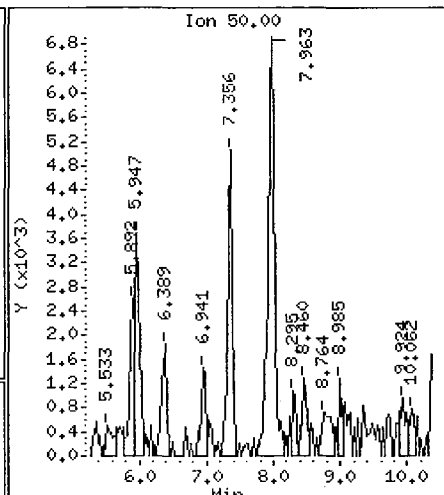
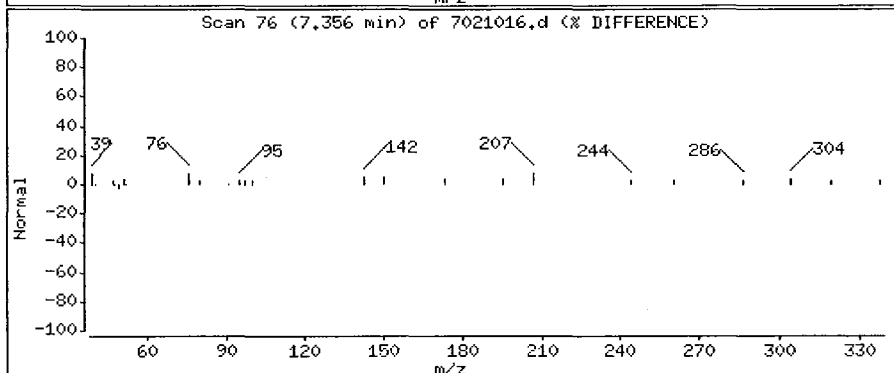
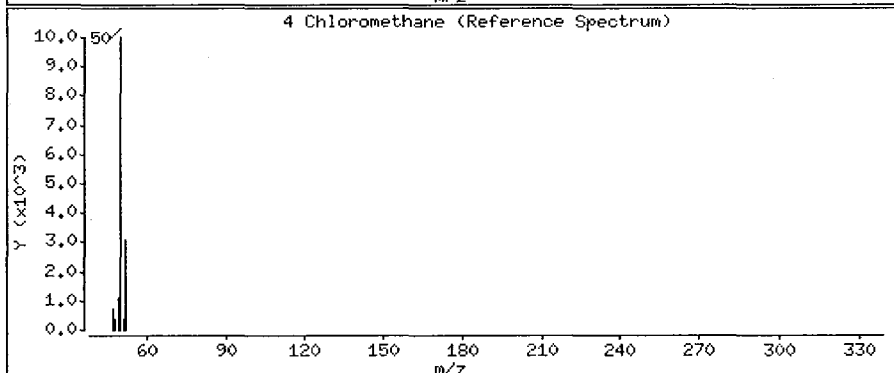
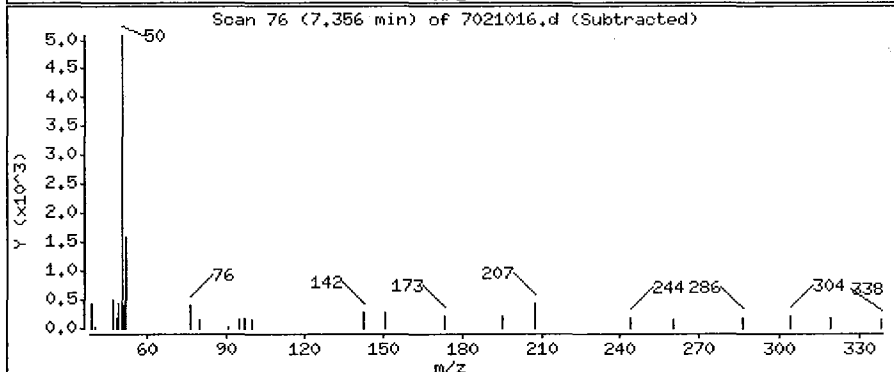
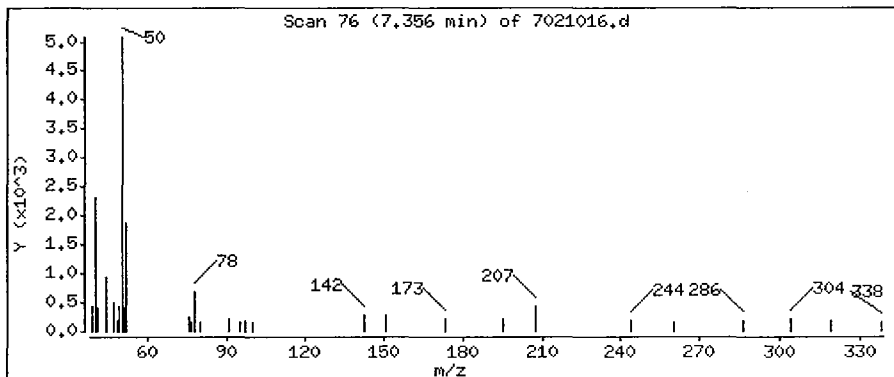
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4561 PPBV



0017

SCOEP00031689

Data File: /chem/msd7.i/7-10feb,b/7021016.d

Page 4

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

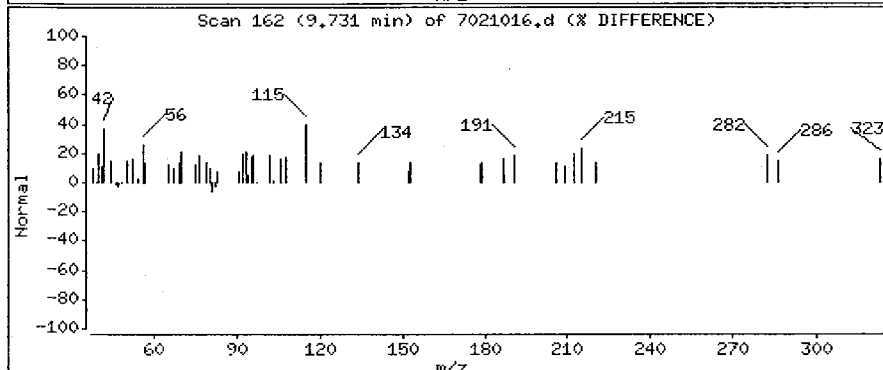
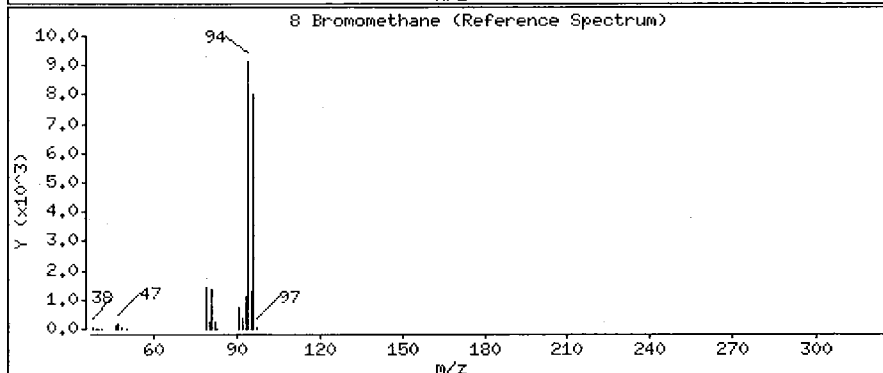
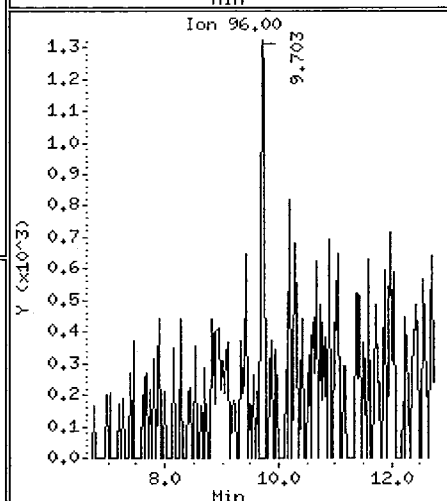
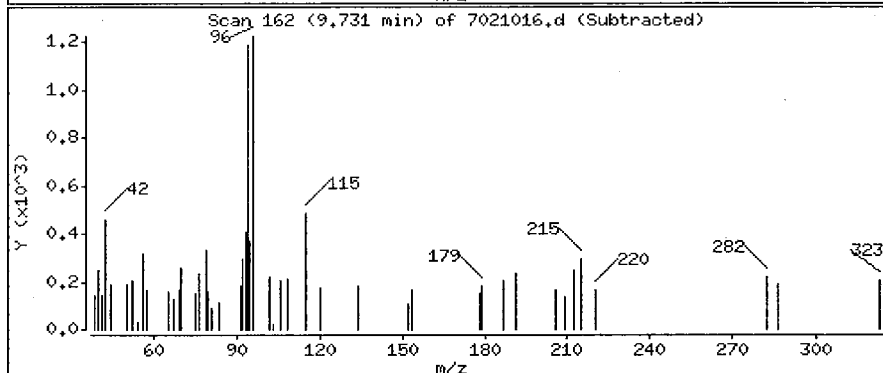
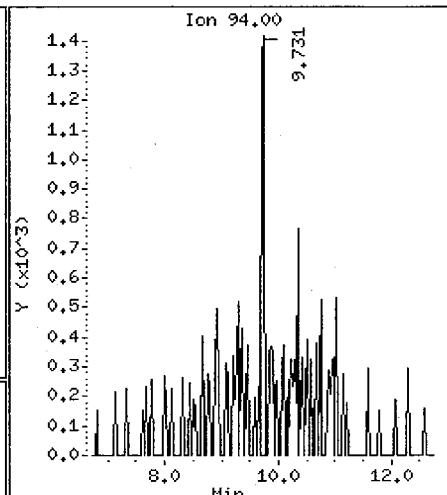
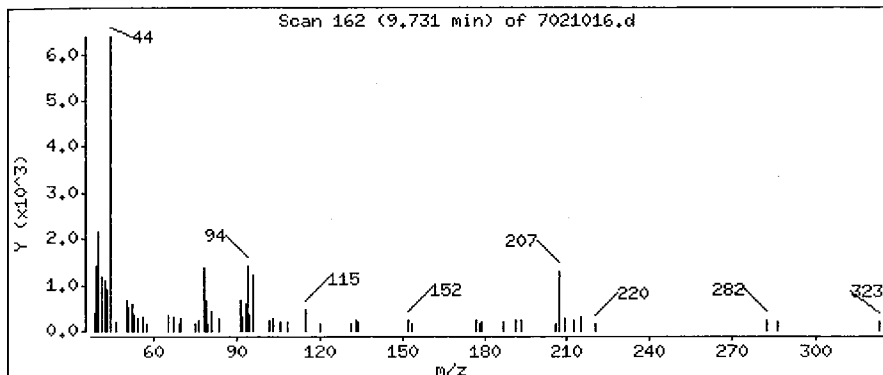
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

8-Bromomethane

Concentration: 0.1247 PPBV



0018

SCOEPAA00031690

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

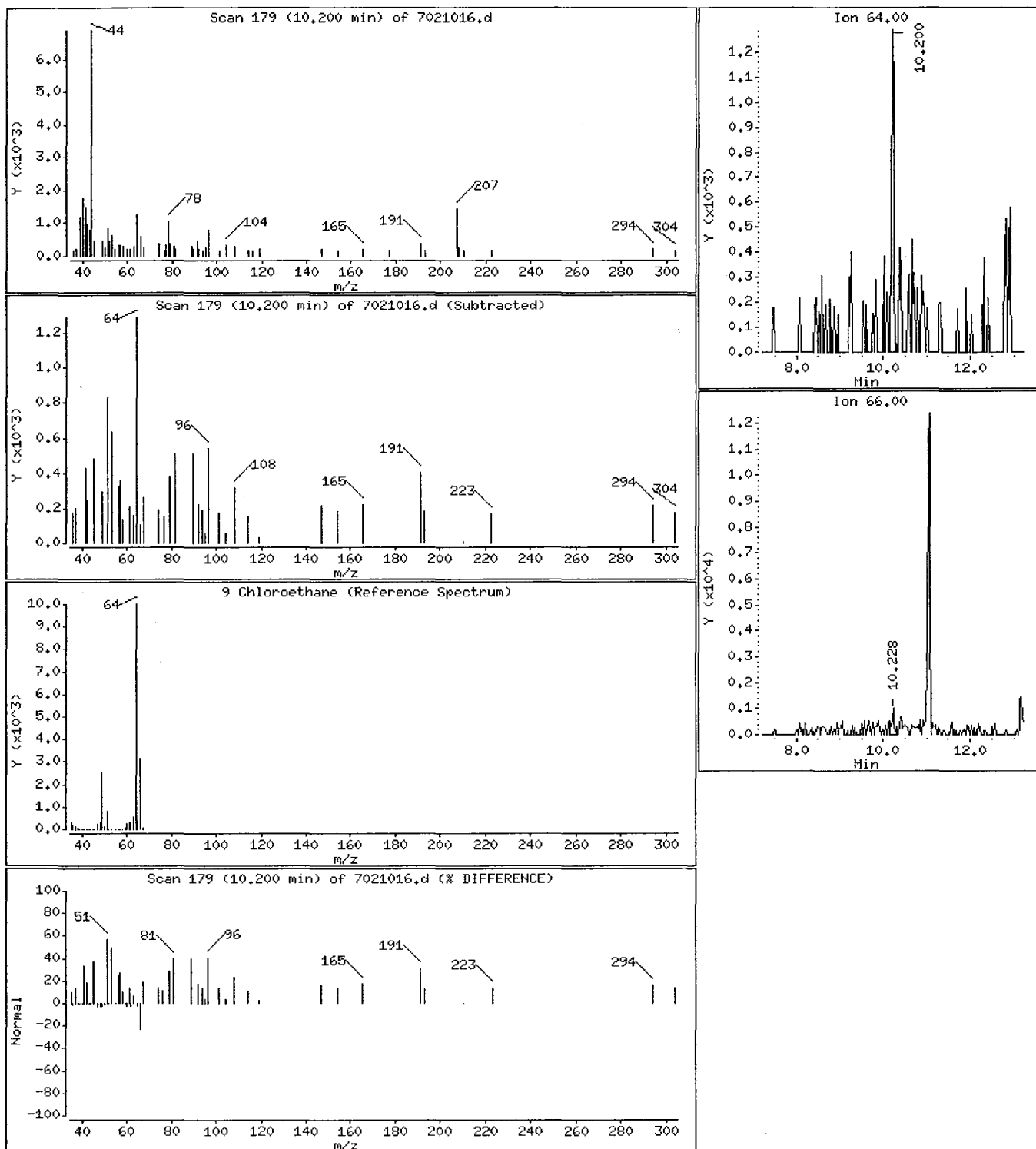
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

9 Chloroethane

Concentration: 0.1808 PPBV



0019

SCOEPAA00031691

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 6

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

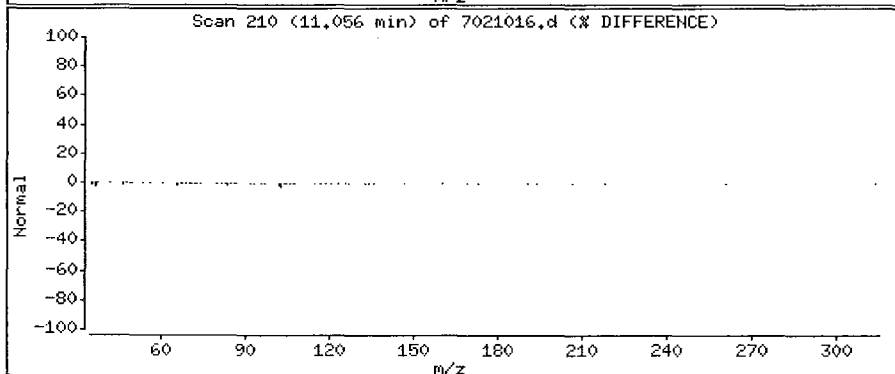
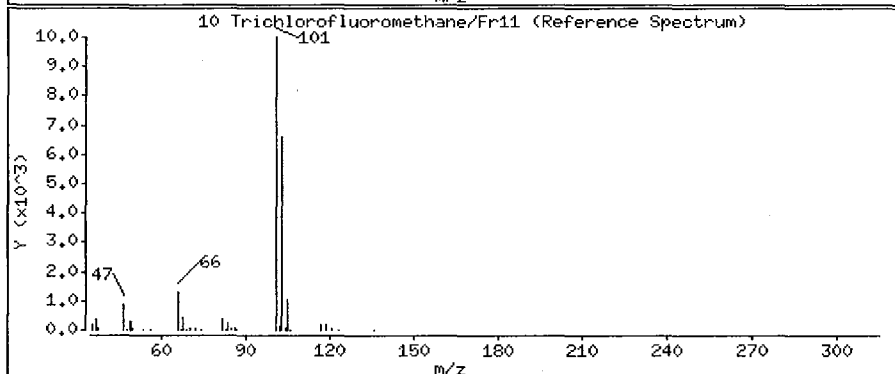
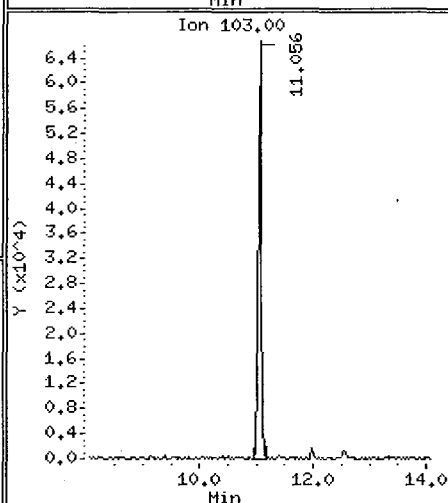
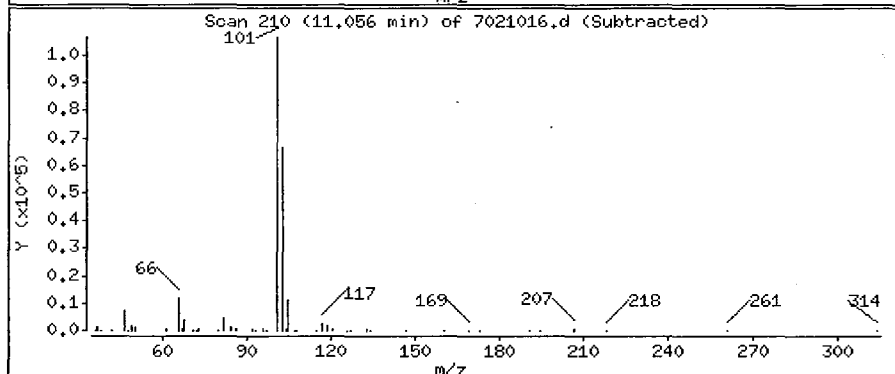
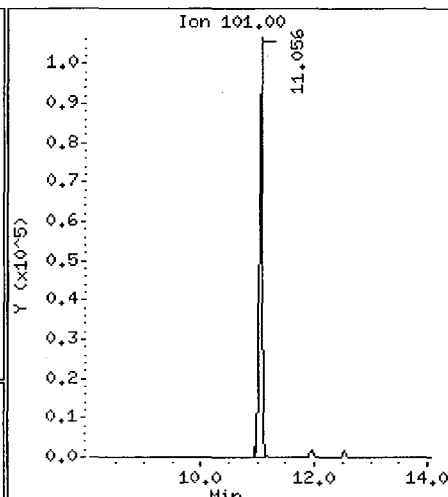
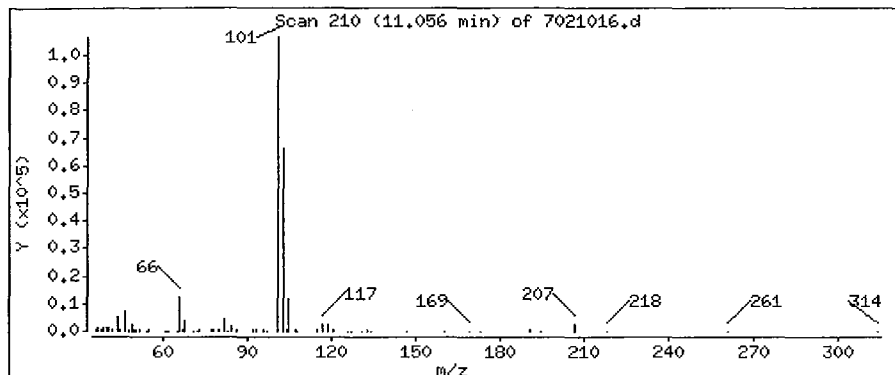
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 2.654 PPBV



0020

SCOEPAA00031692

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

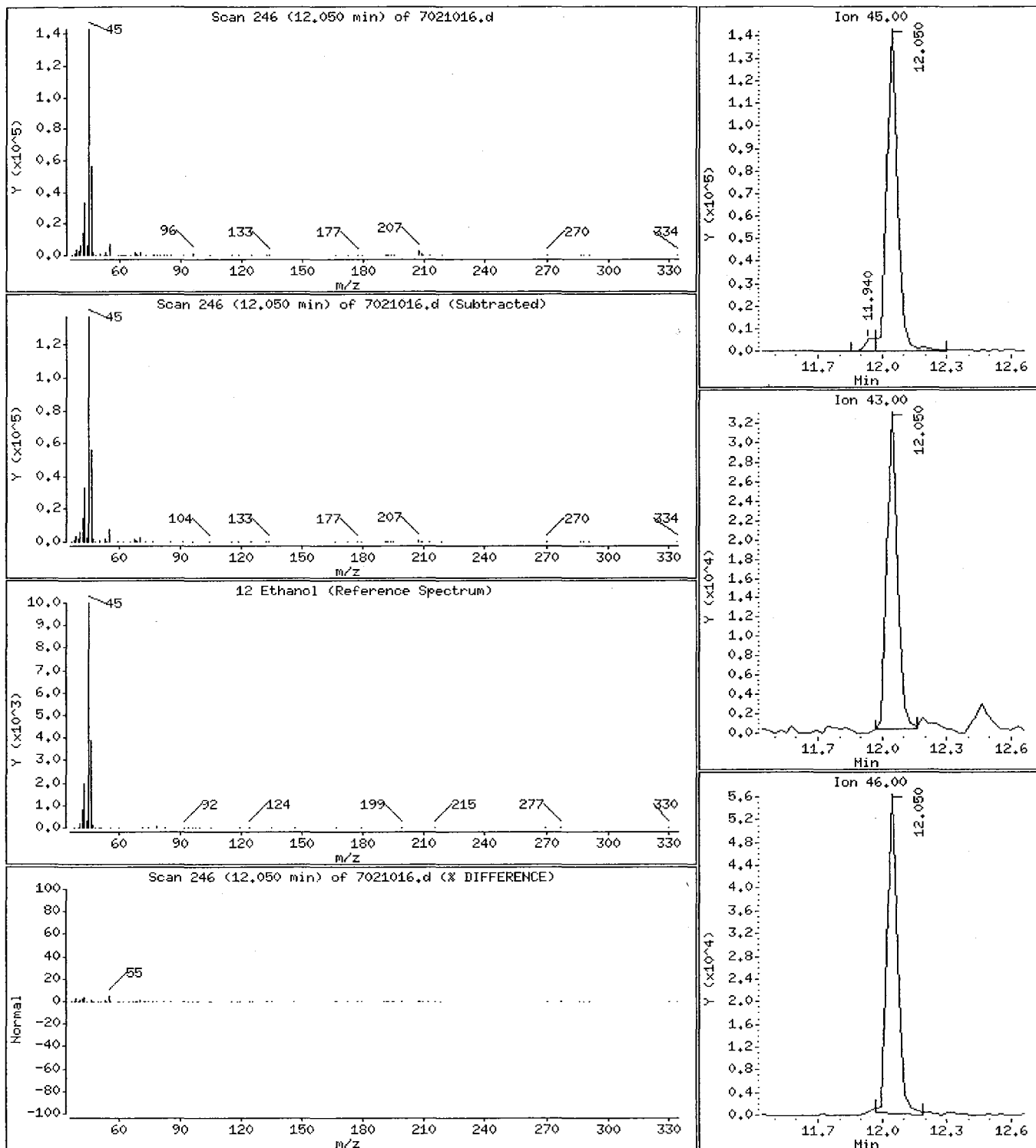
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 21.973 PPBV



0021

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 8

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

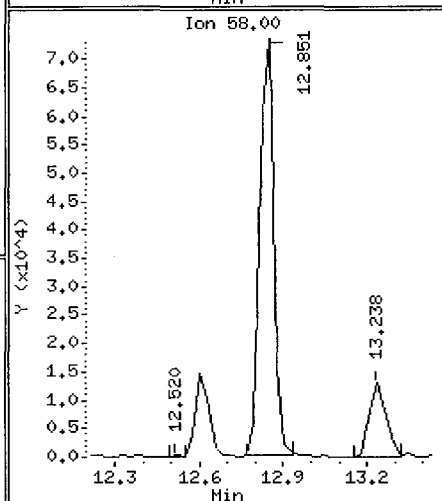
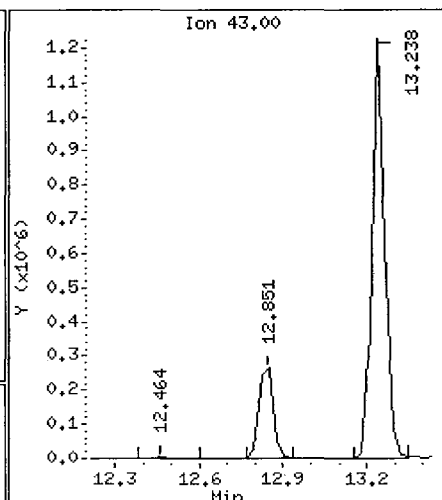
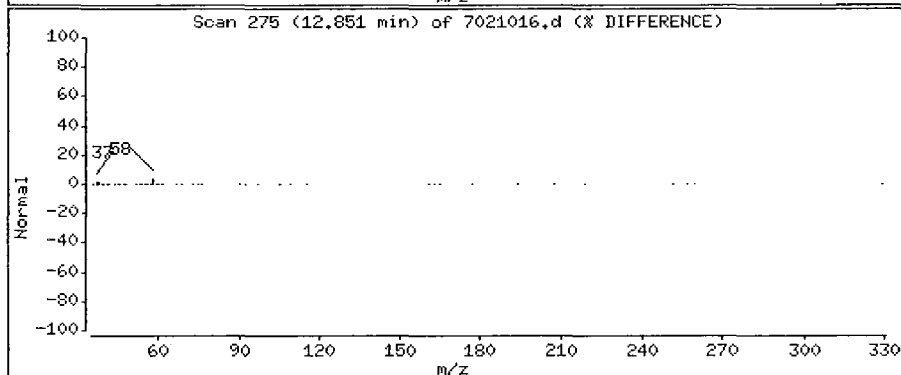
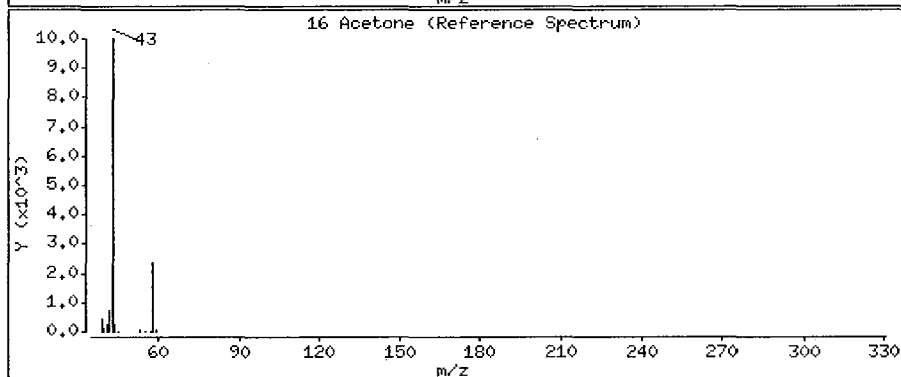
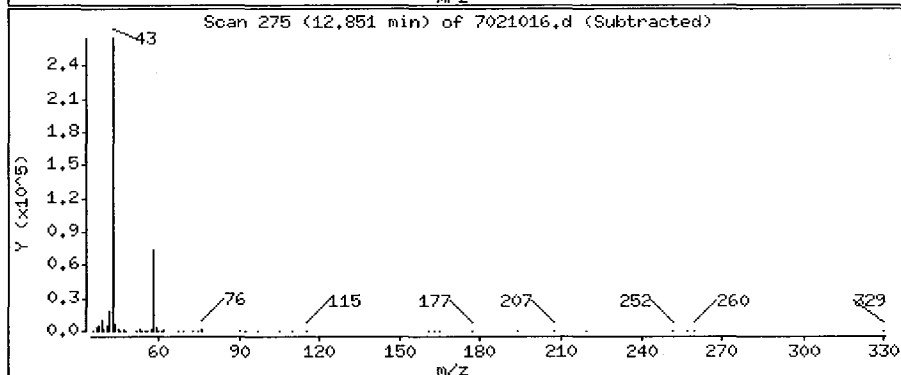
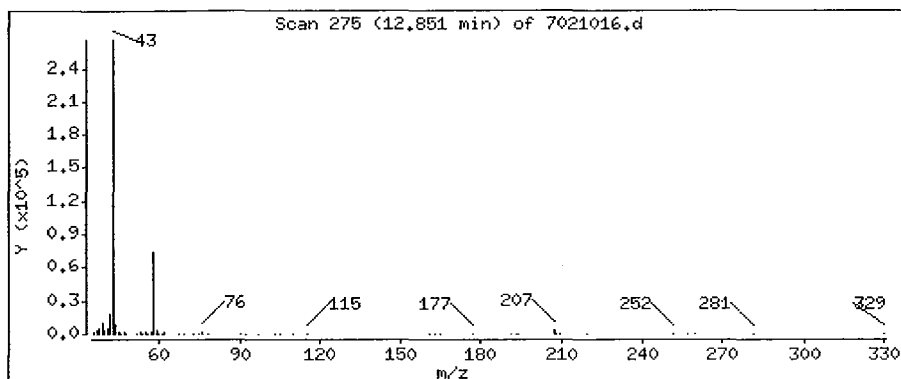
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 8.055 PPBV



0022

SCOEPAA00031694

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 9

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

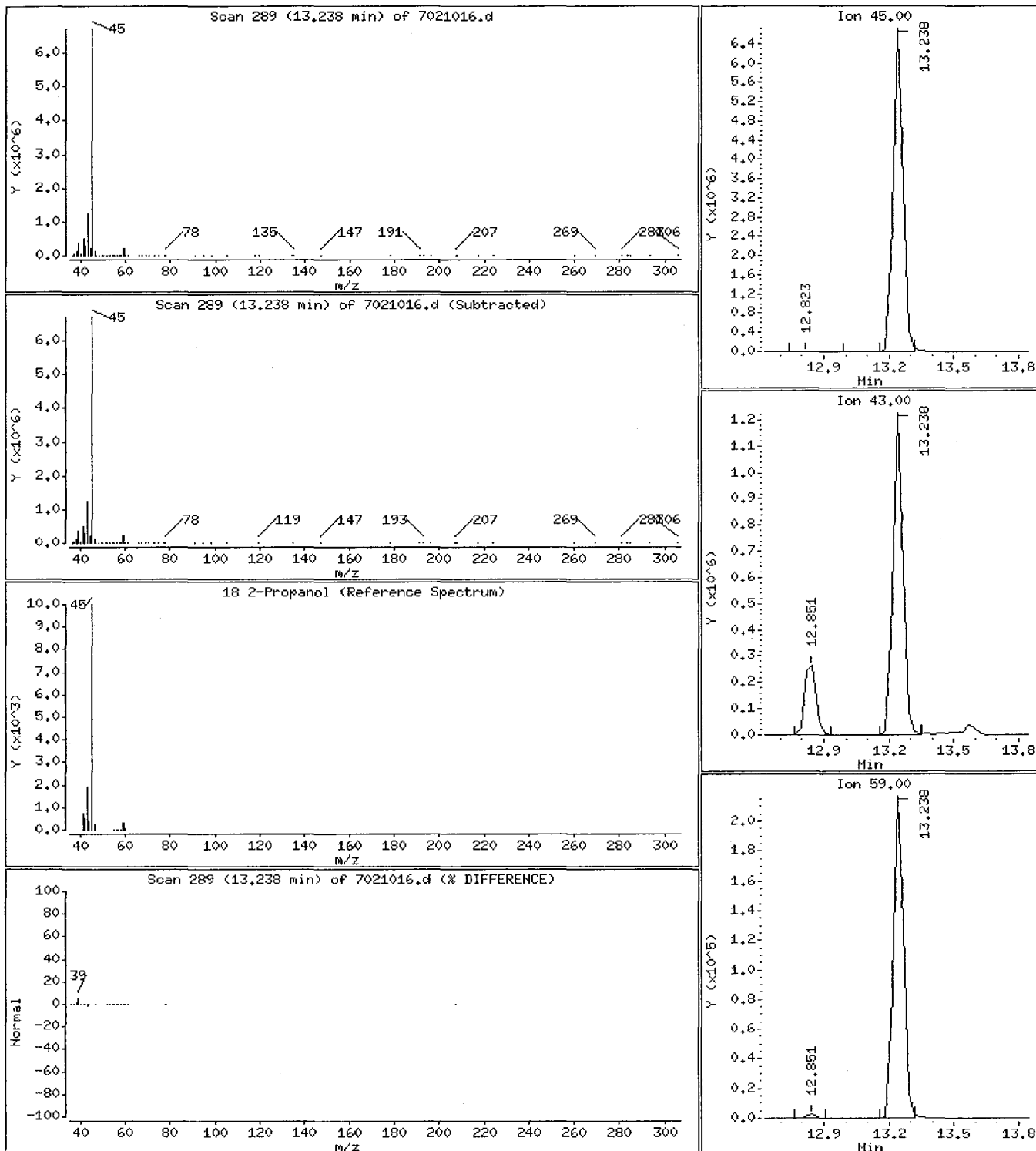
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 179.94 PPBV



0023

SCOEPAA00031695

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 10

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

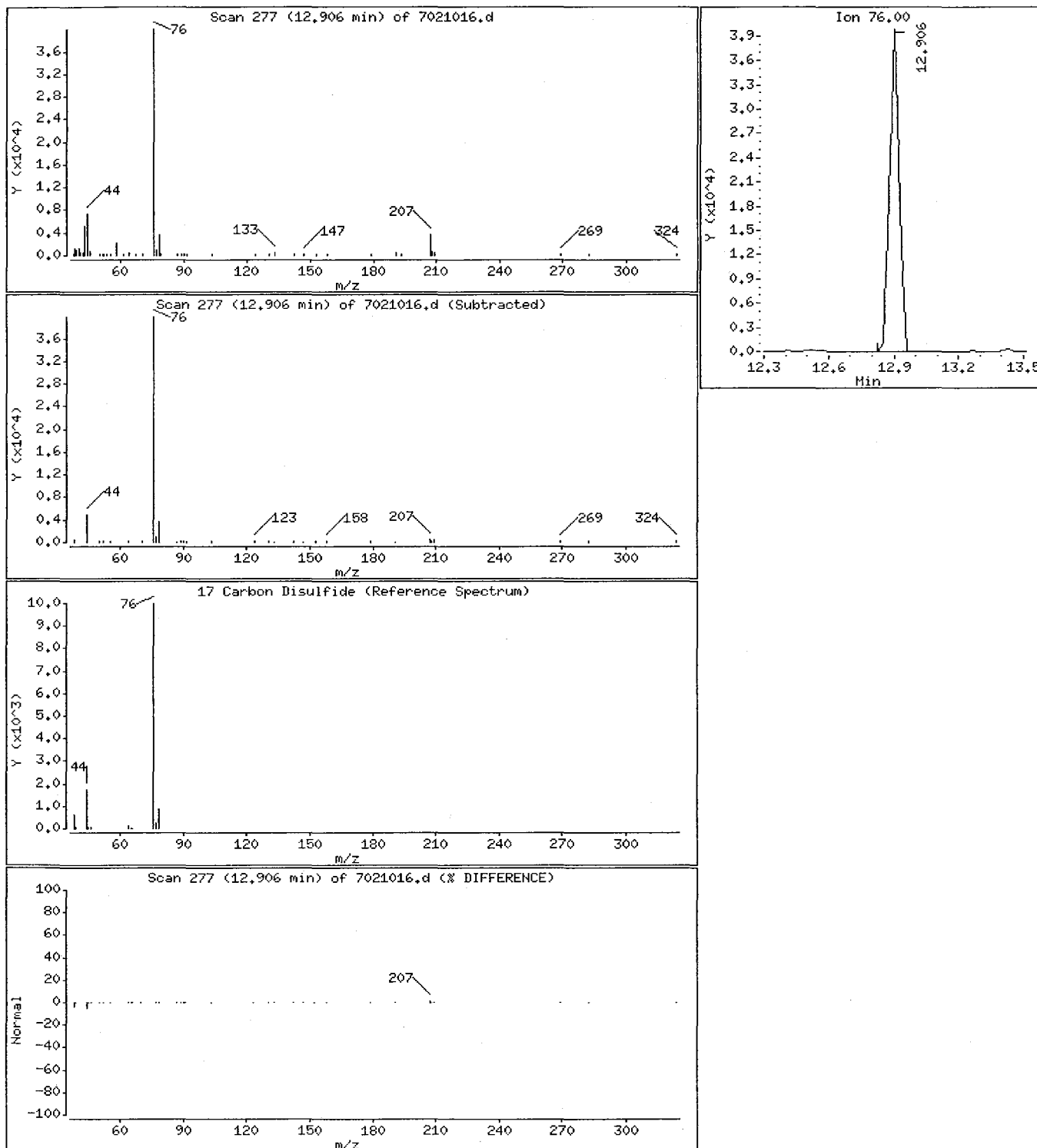
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.7986 PPEV



0024

SCOEP00031696

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

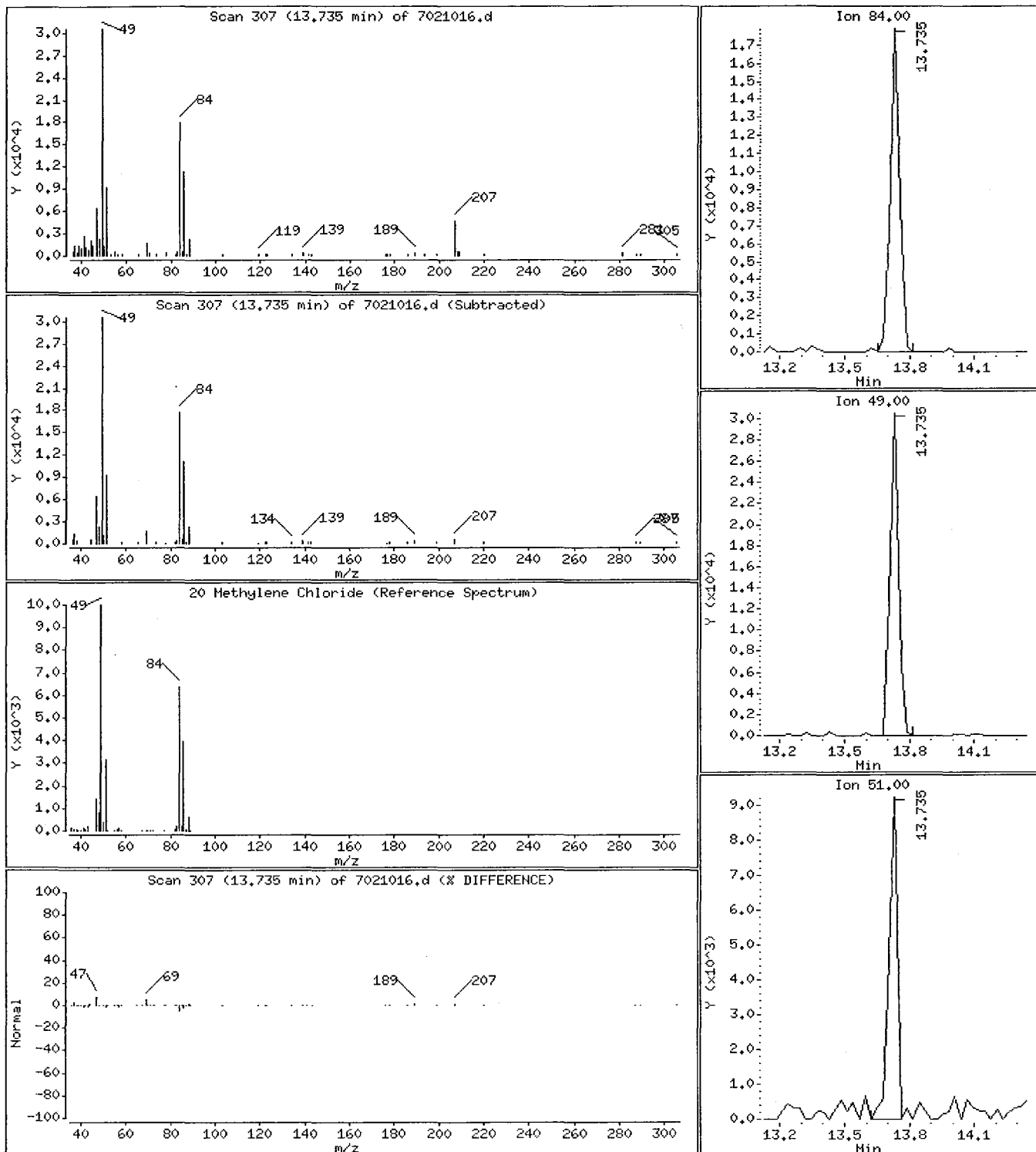
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 1.092 PPBV



0025

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

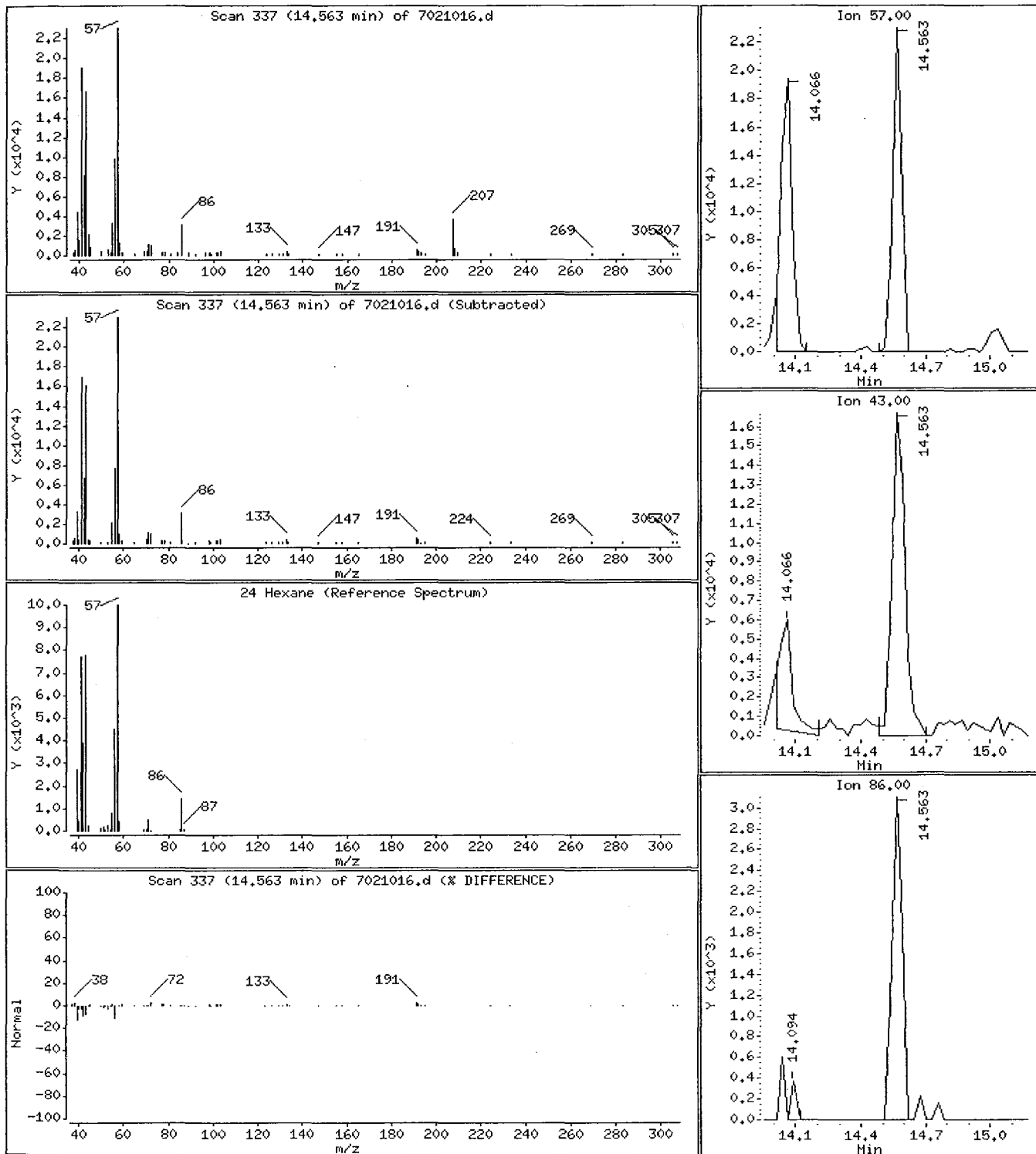
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.7282 PPBV



0026

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

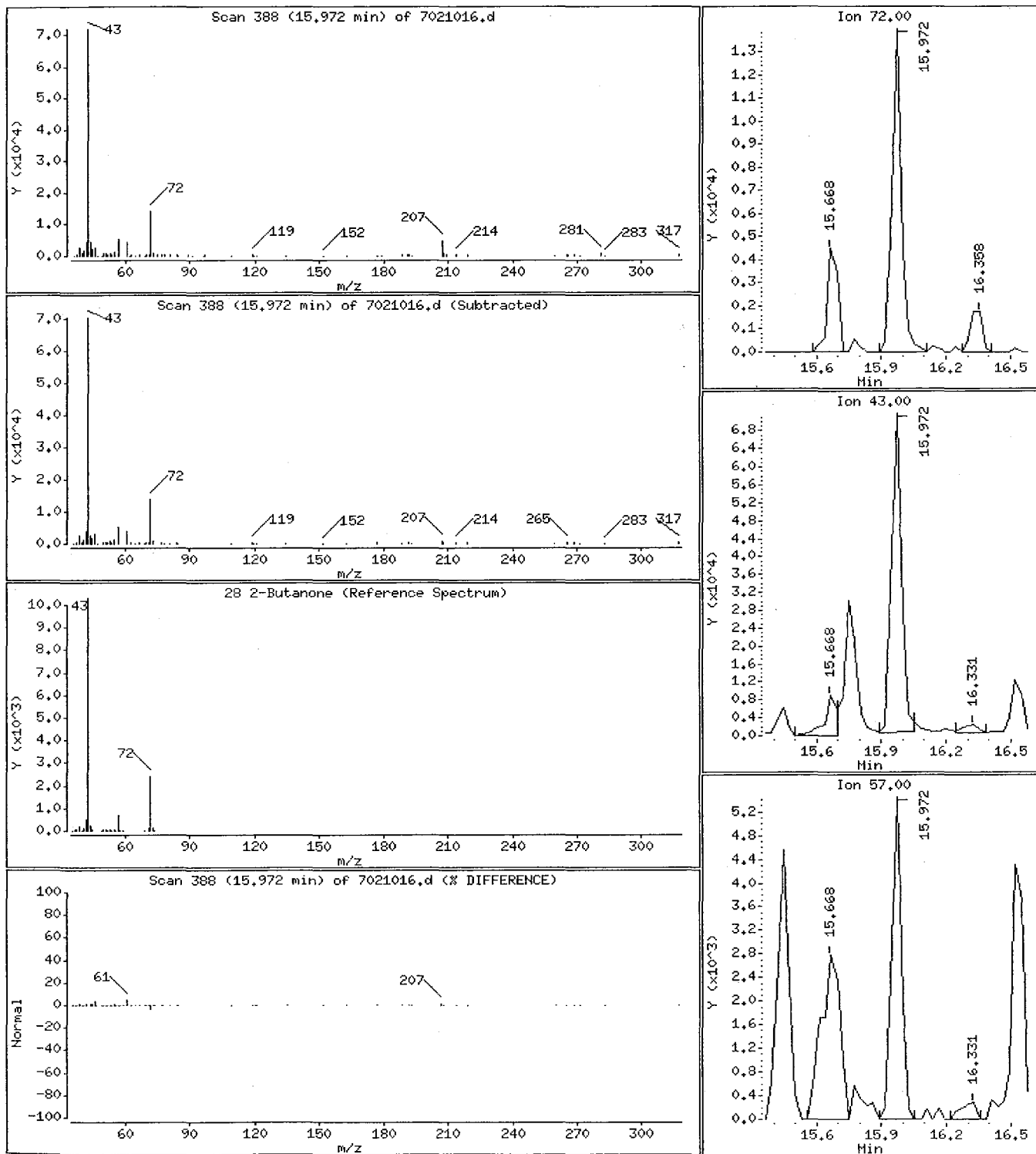
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.651 PPBW



0027

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

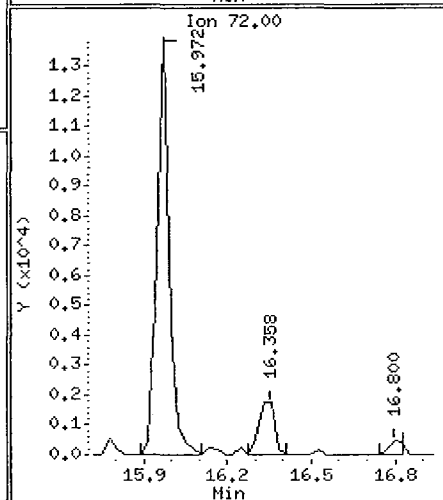
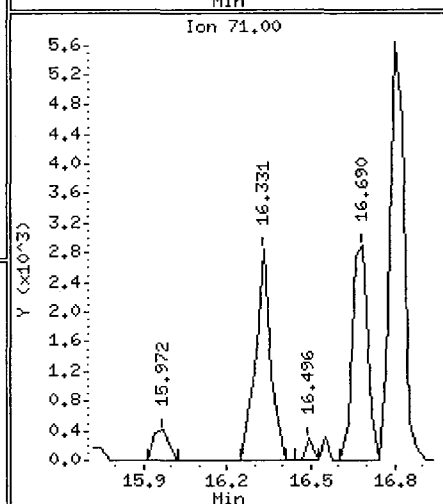
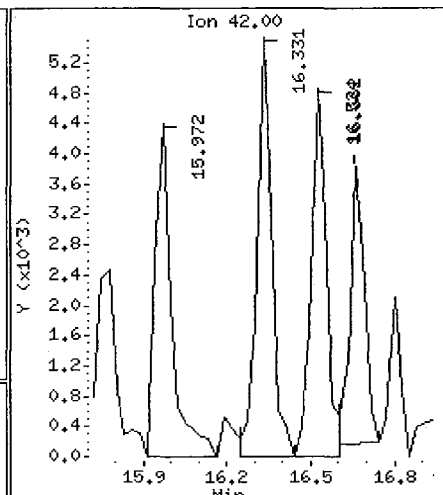
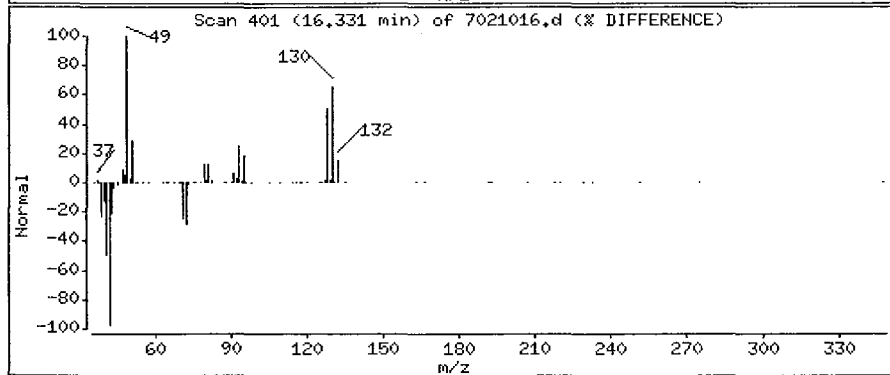
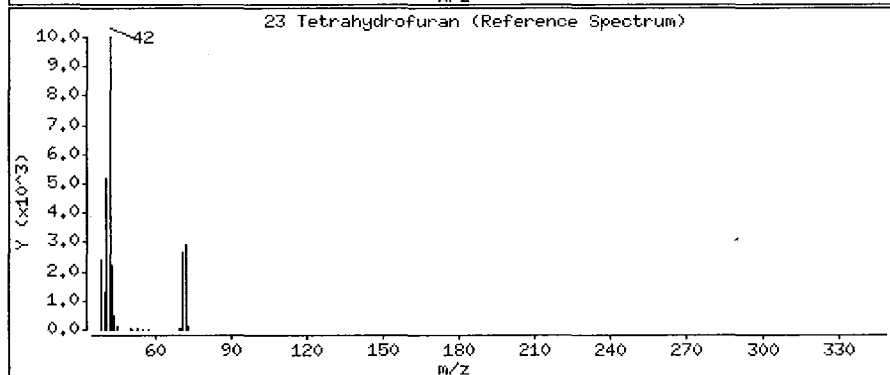
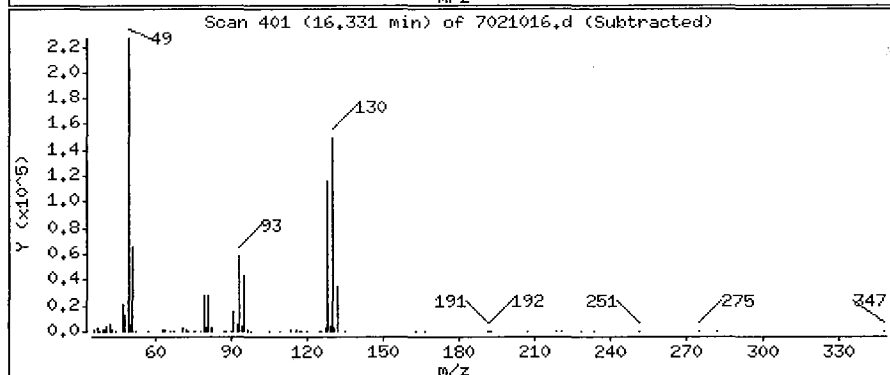
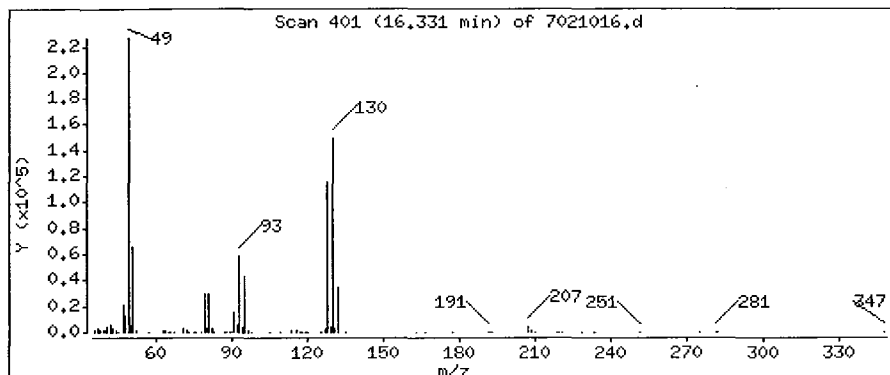
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.2892 PPEV



0028

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

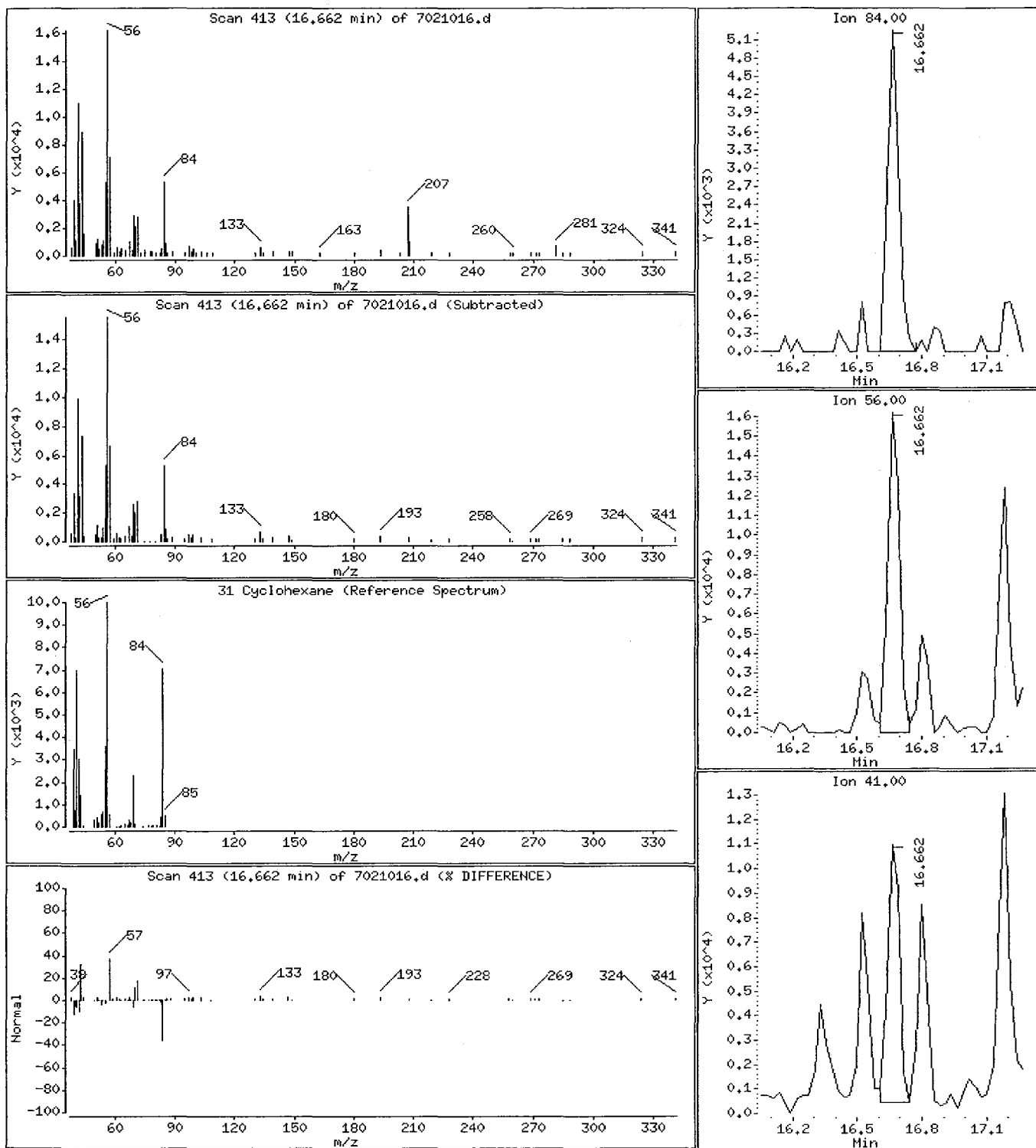
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.3769 PPBV



0029

SCOEP00031701

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 16

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

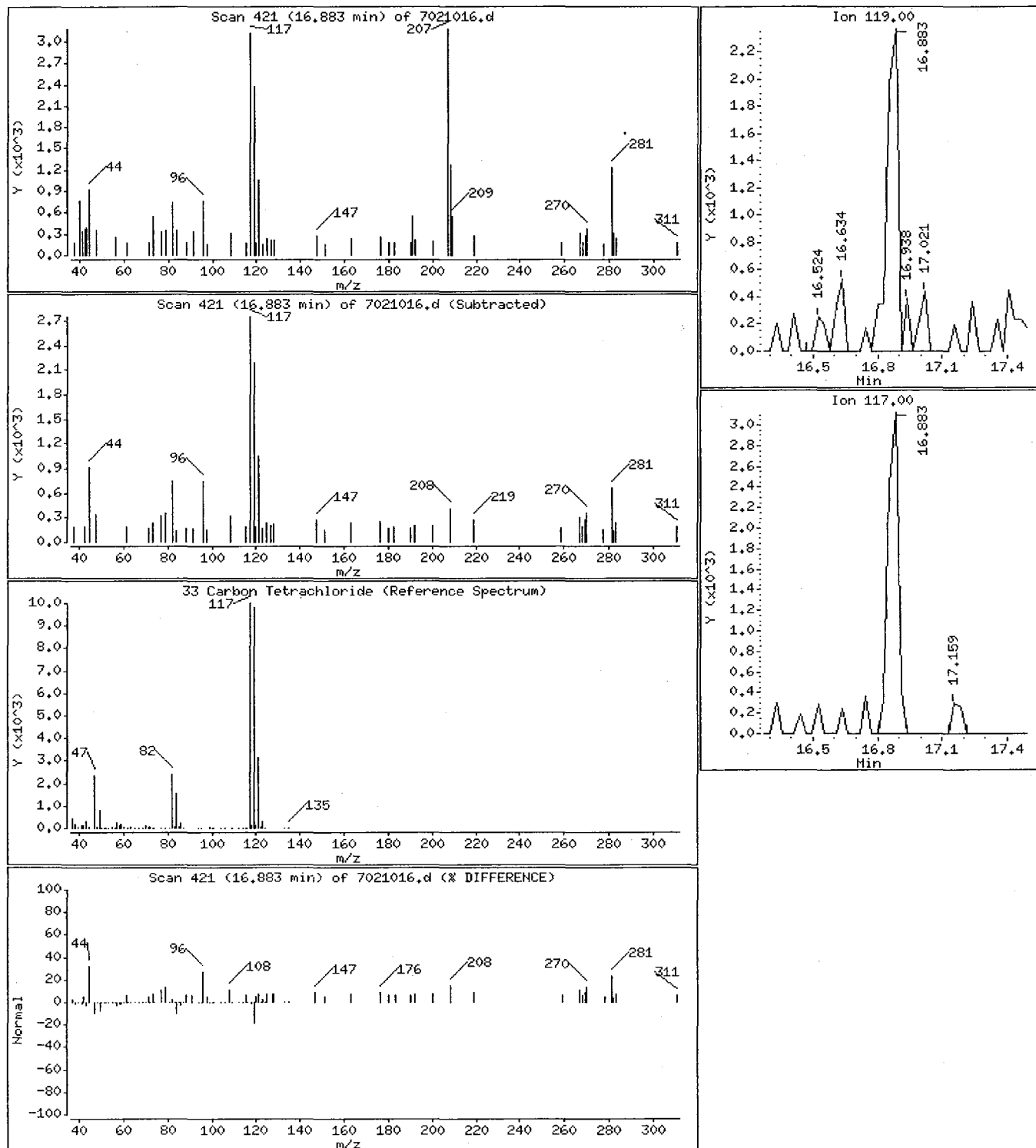
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.09969 PPBV



0030

SCOEPAA00031702

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 17

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

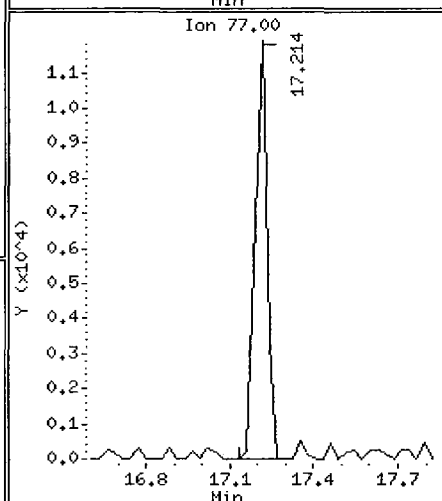
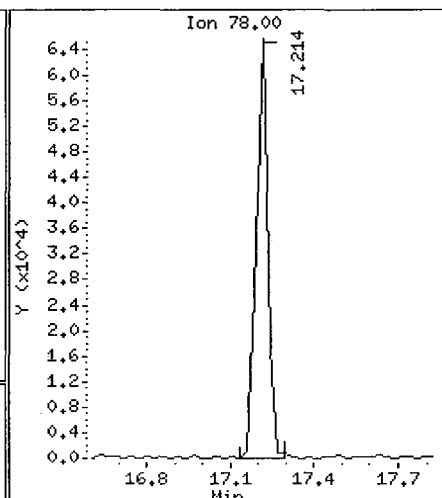
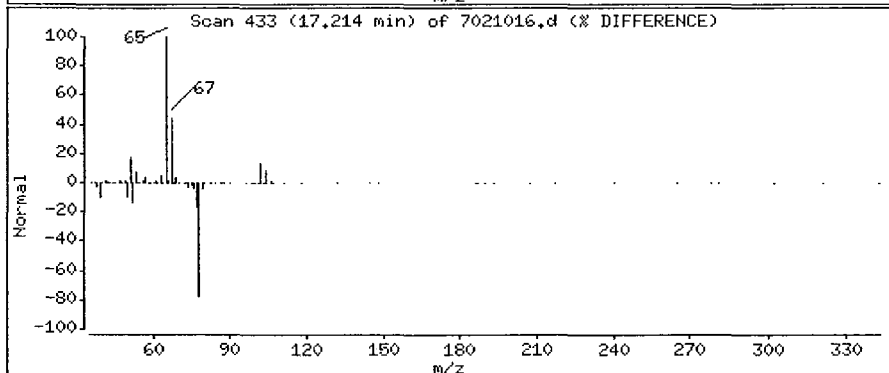
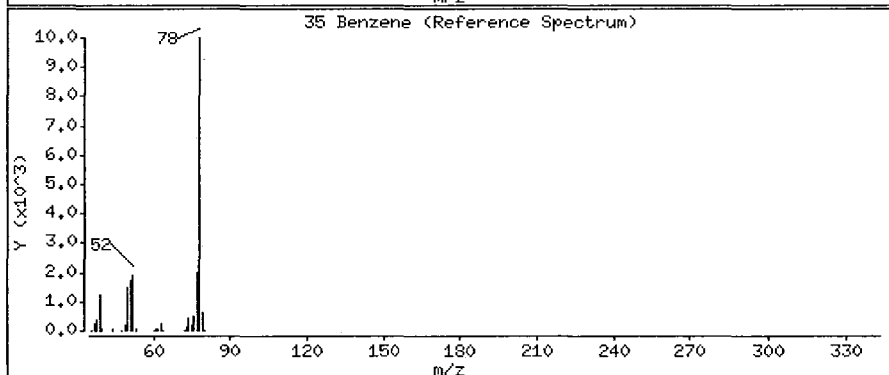
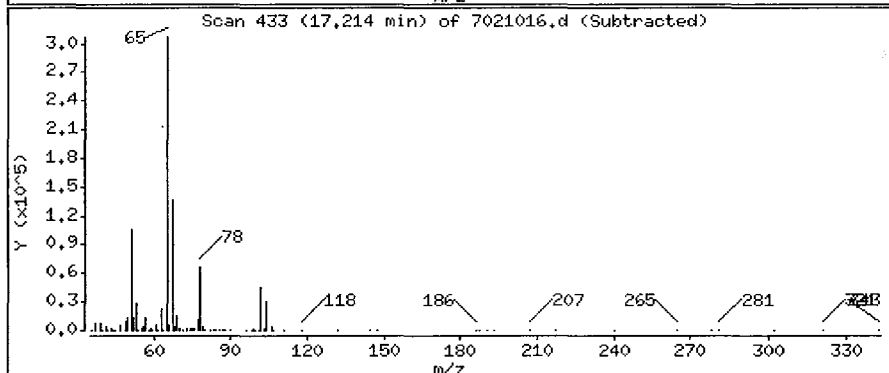
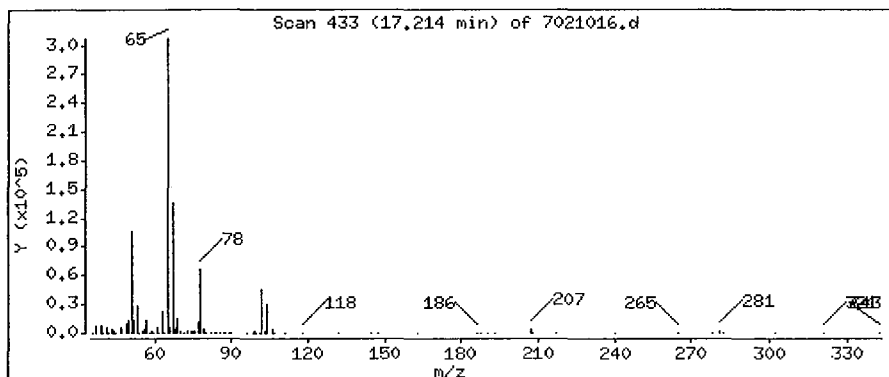
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1.175 PPBV



0031

SCOEPAA00031703

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

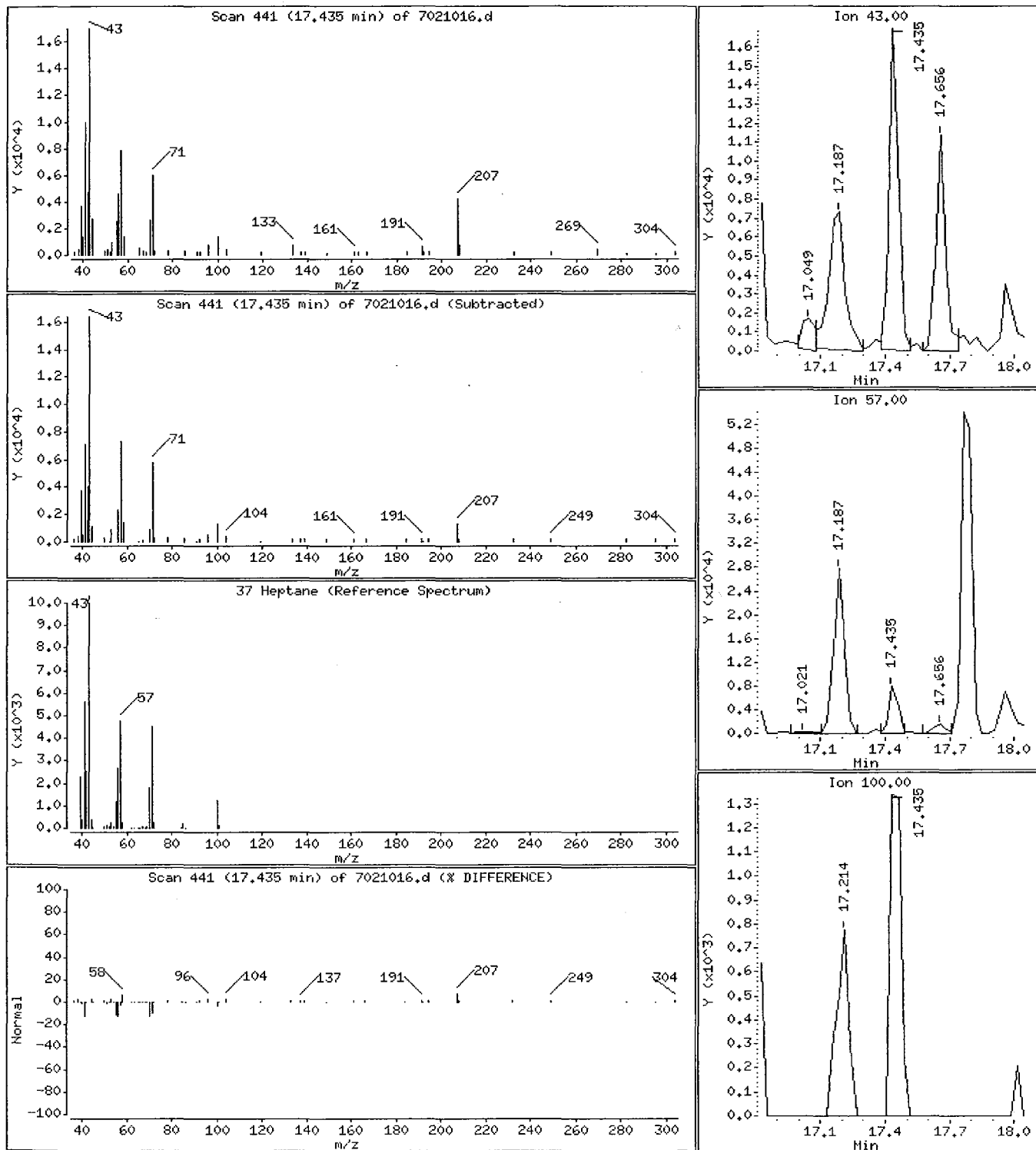
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.5400 PPBV



0032

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 19

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

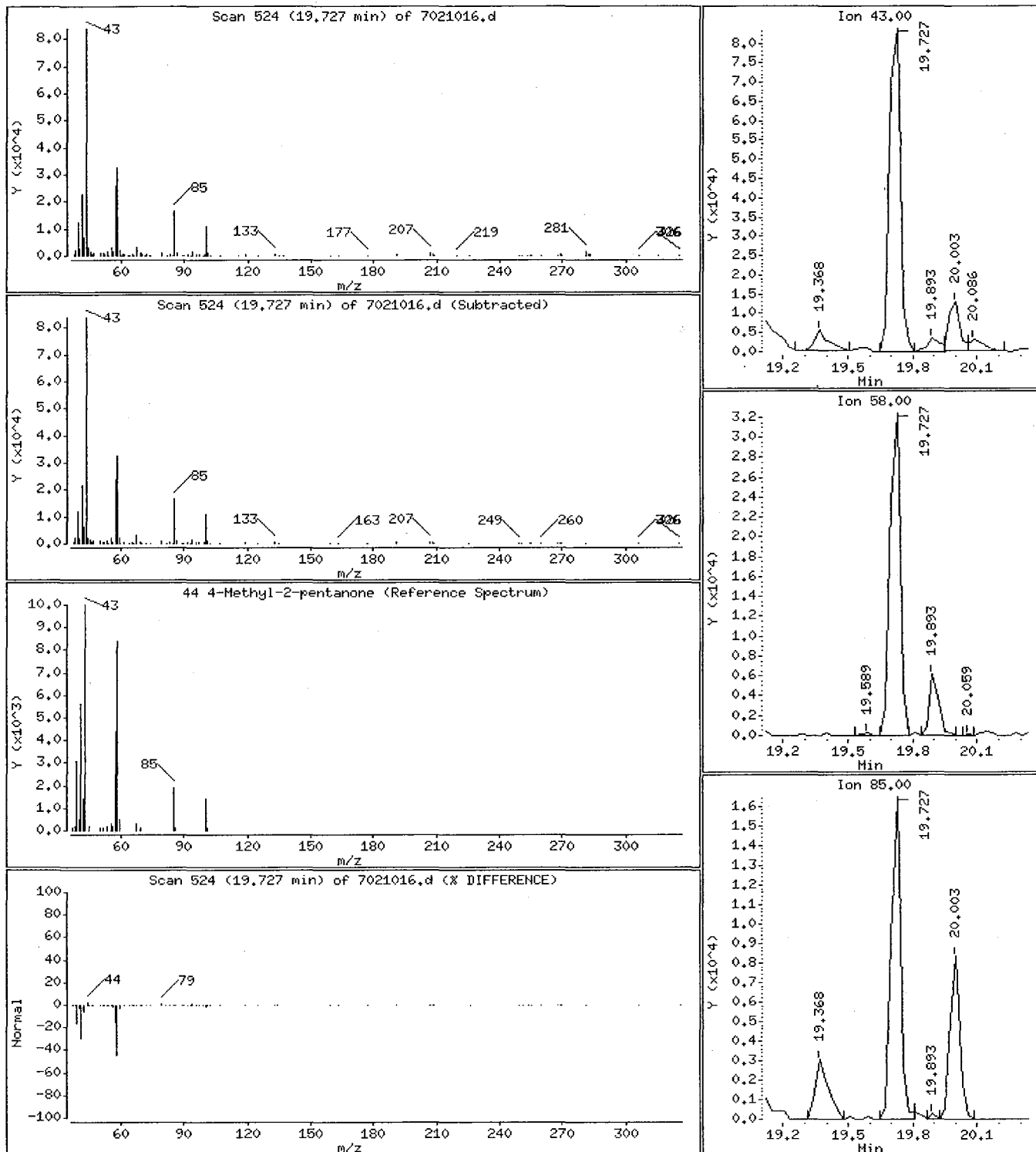
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 2.851 PPBV



0033

SCOEPAA00031705

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 20

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

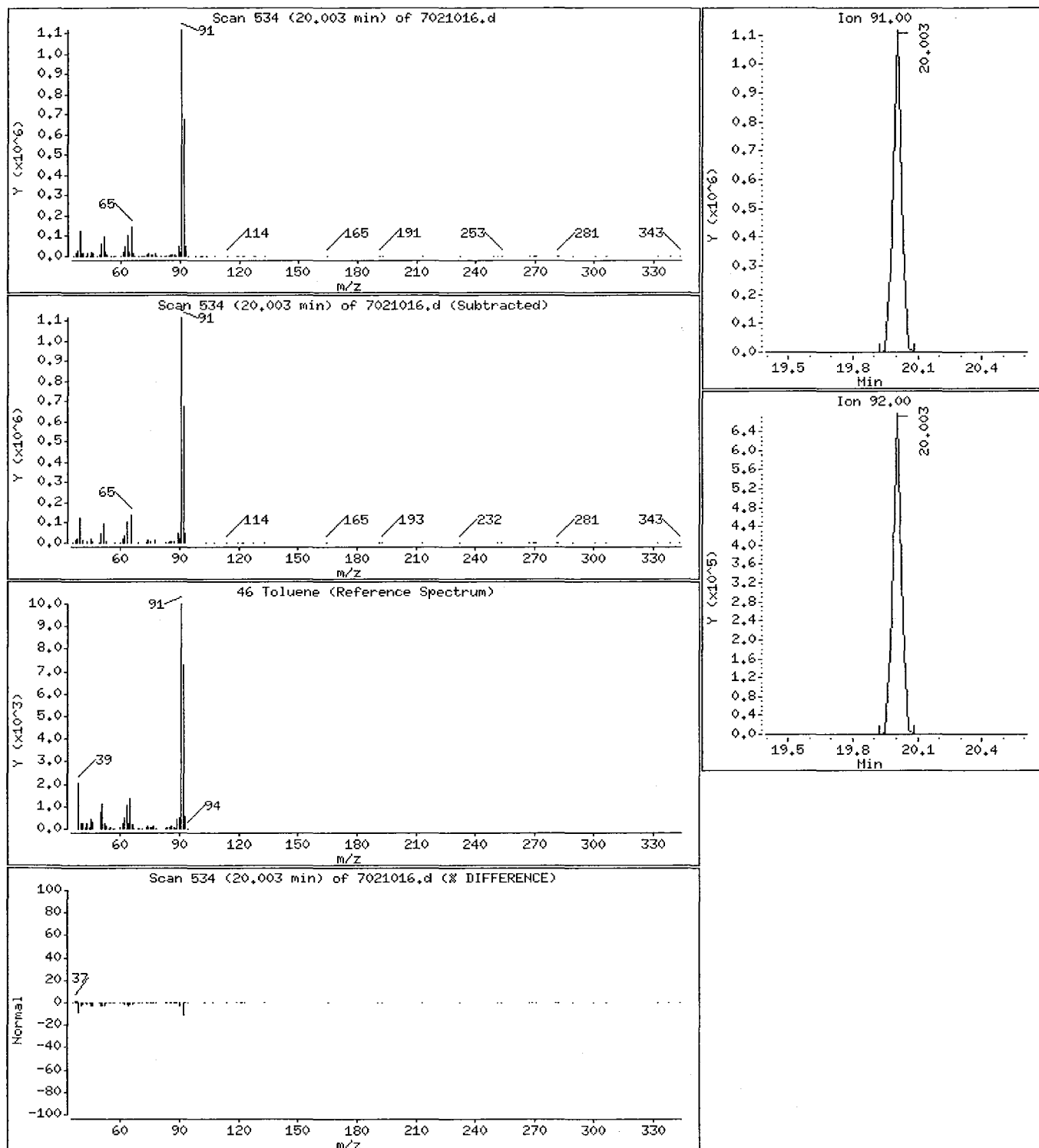
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

46 Toluene

Concentration: 16.468 PPBV



0034

SCOEPAA00031706

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 21

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

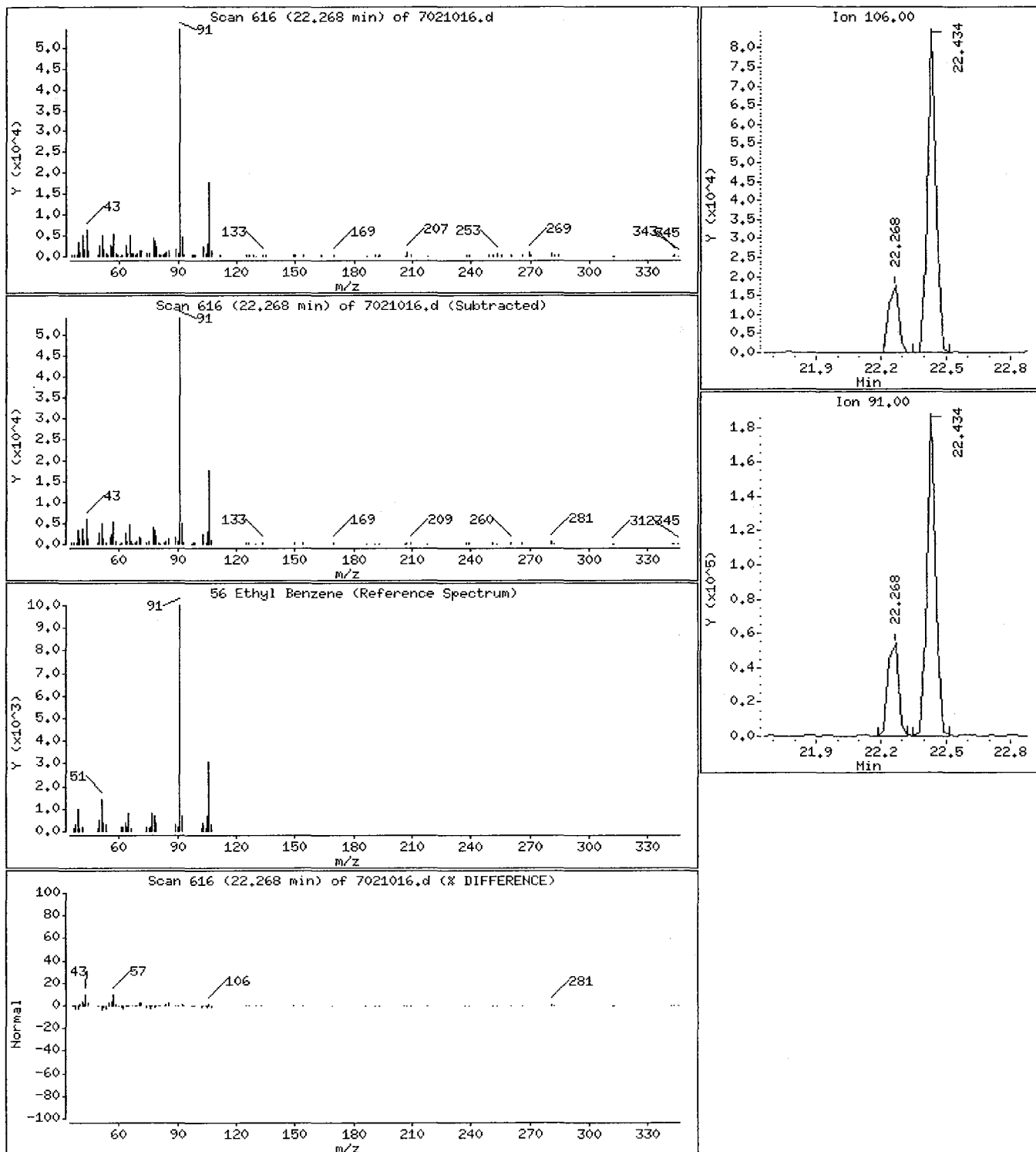
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.8748 PPBV



0035

SCOEPA00031707

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 22

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

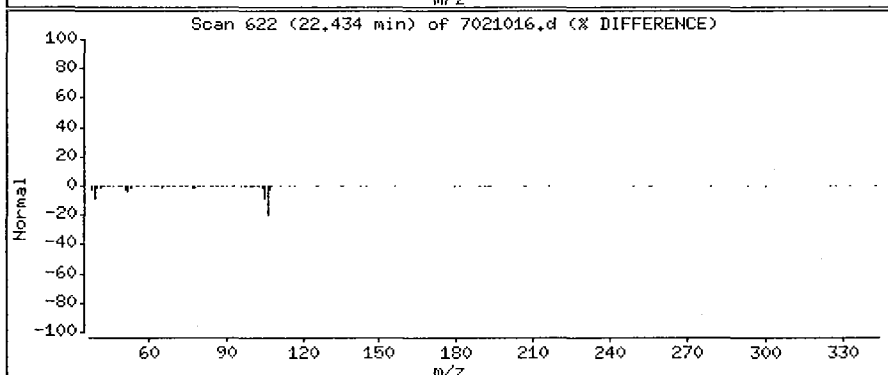
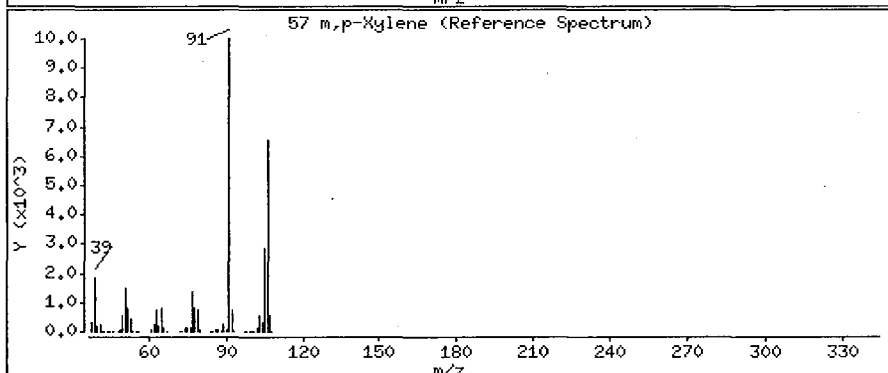
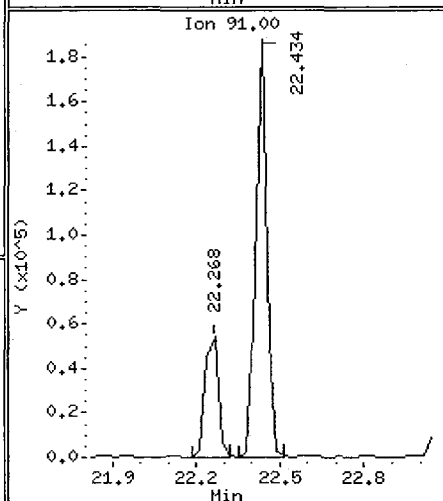
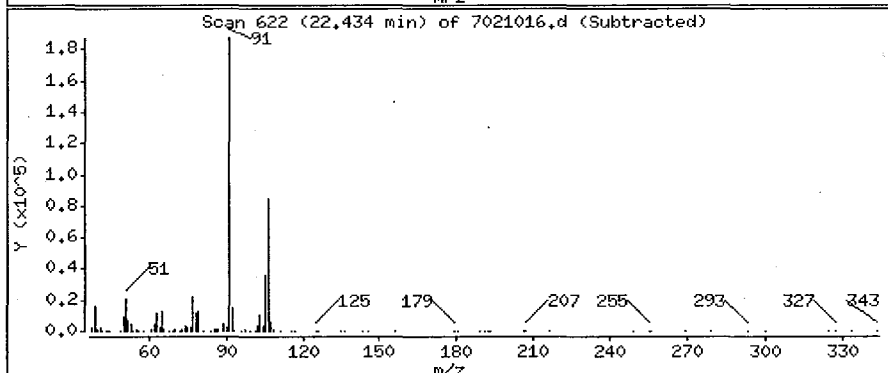
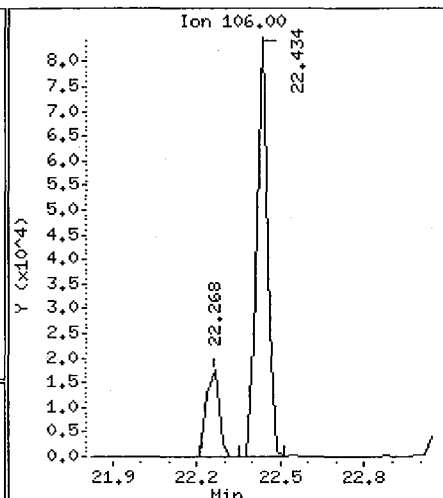
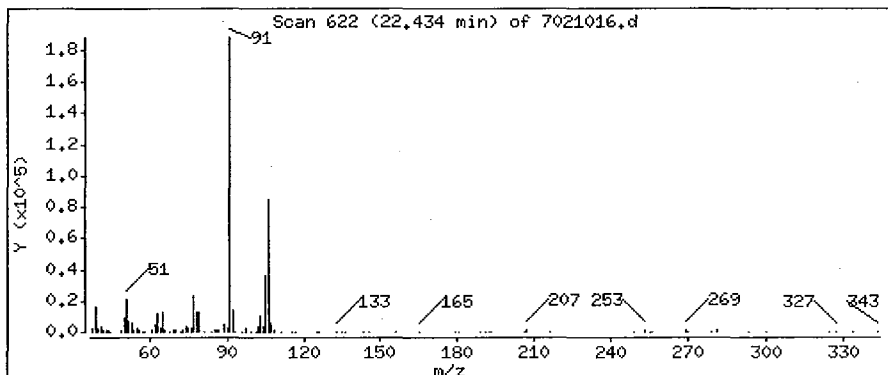
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 2.917 PPBV



0036

SCOEPAA00031708

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 23

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

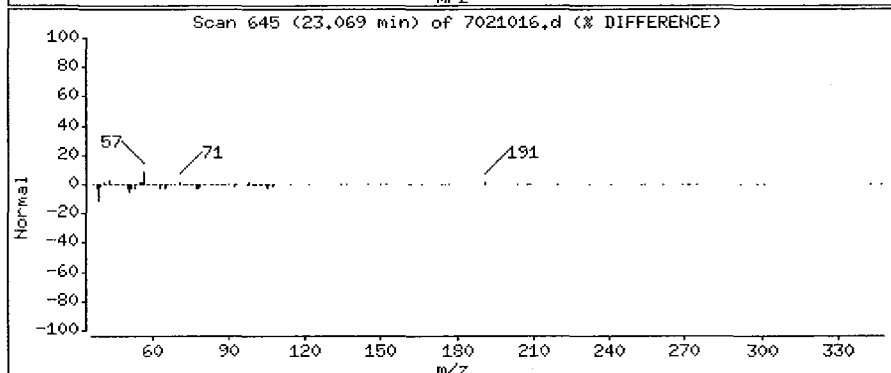
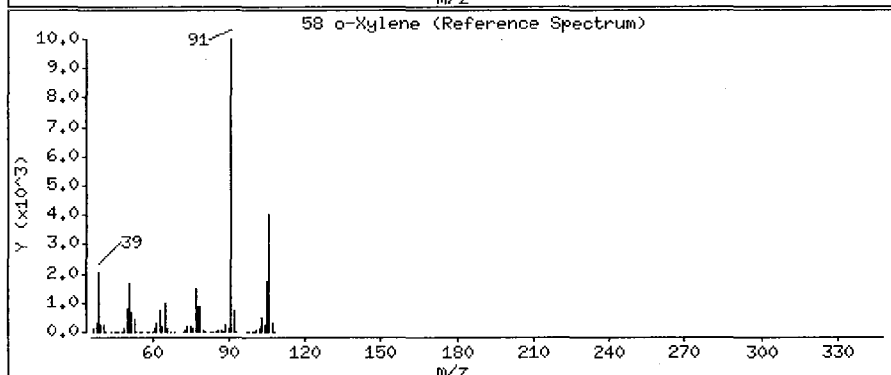
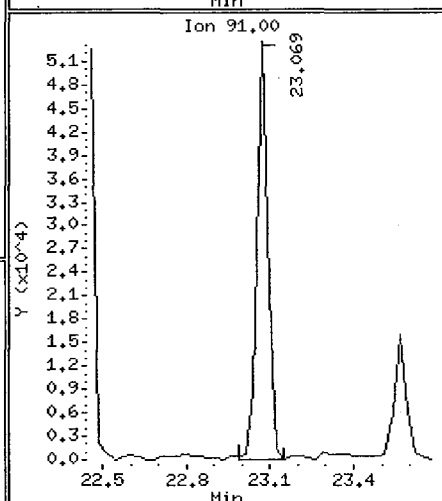
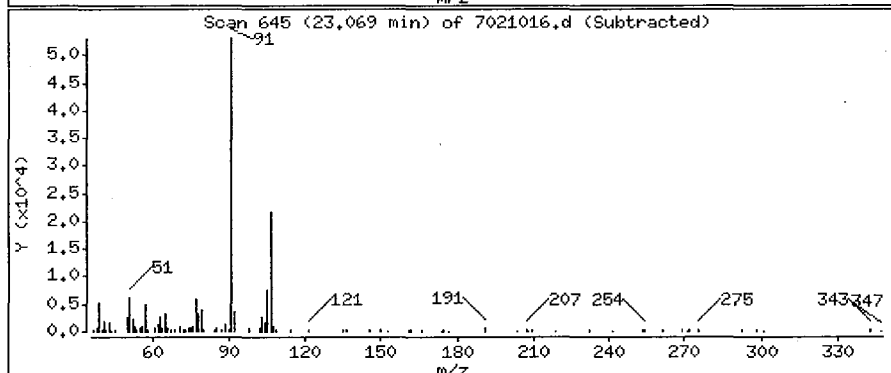
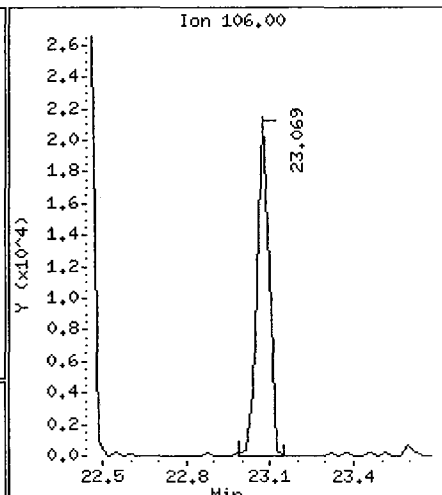
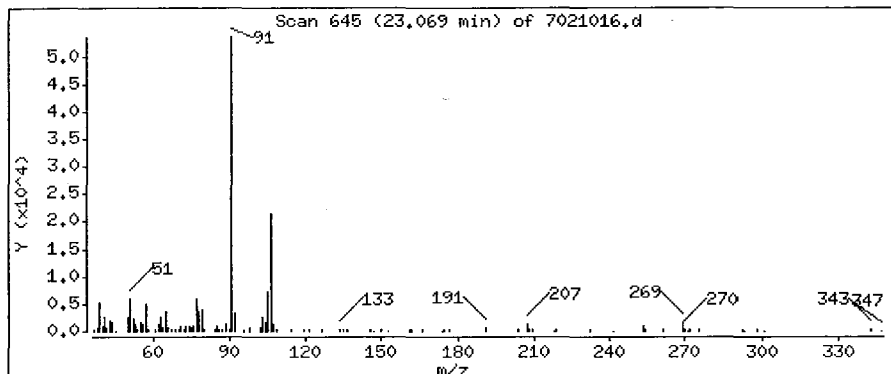
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

58 o-Xylene

Concentration: 1.009 PPBV



0037

SCOEPAA00031709

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

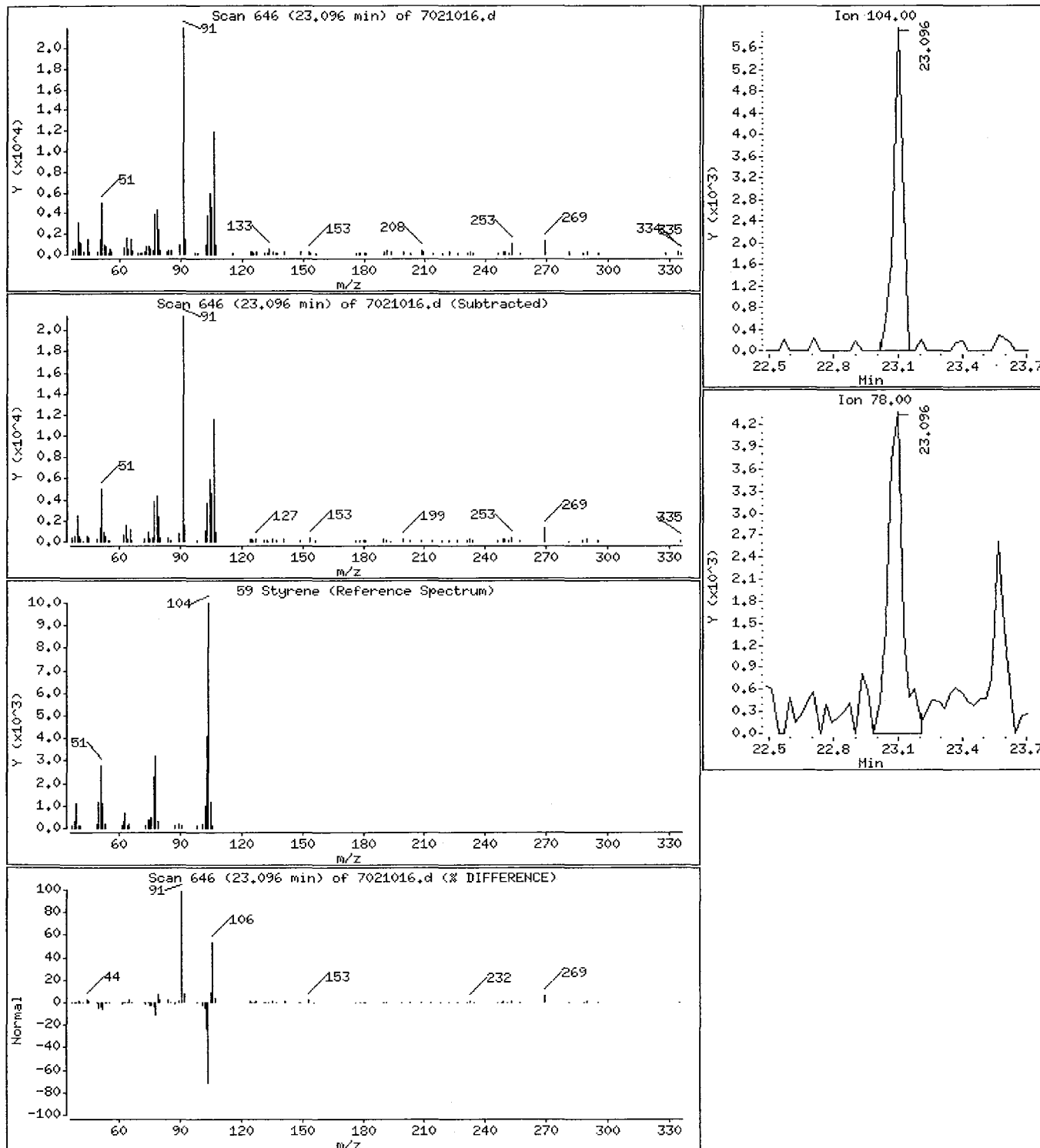
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1864 PPBV



0038

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 25

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

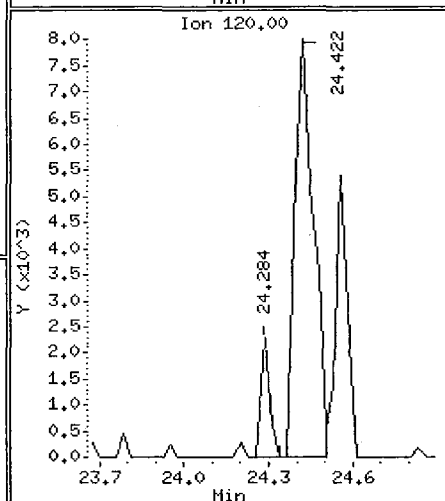
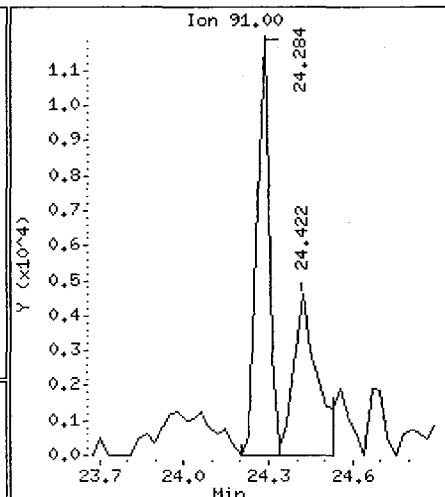
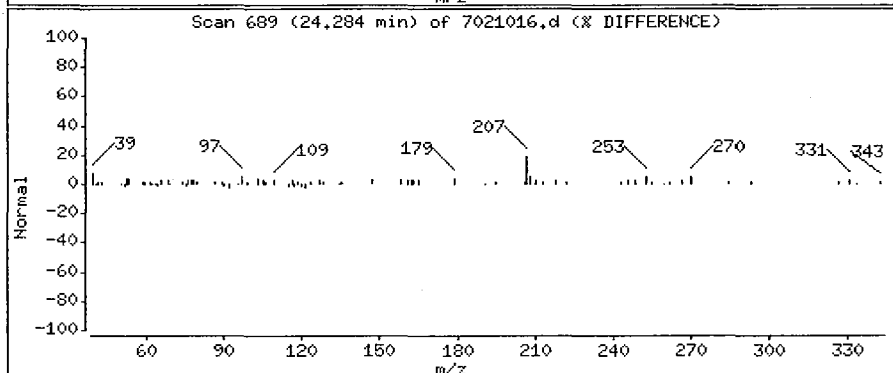
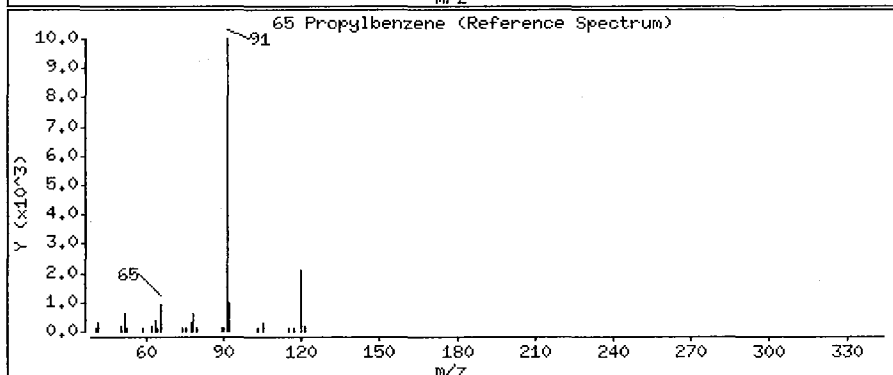
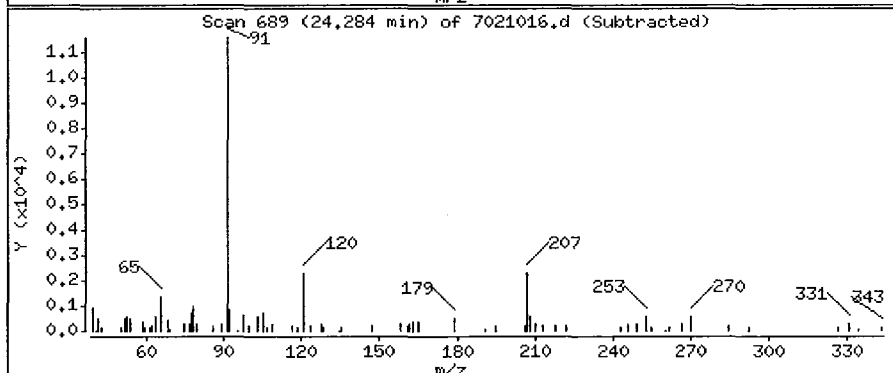
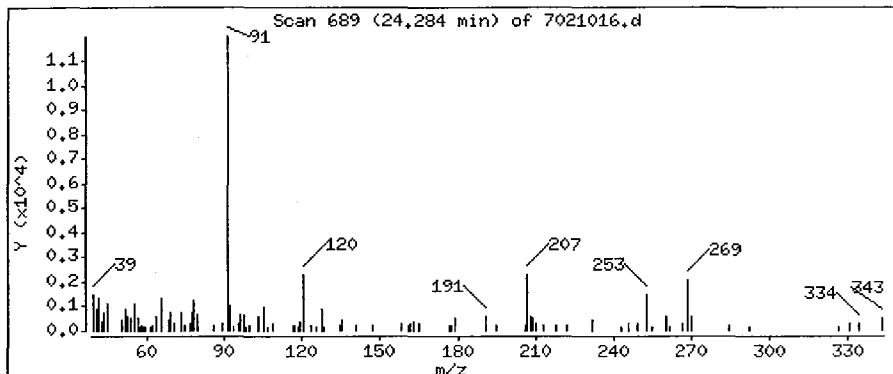
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1724 PPBV



0039

SCOEPA00031711

Data File: /chem/msd7.i/7-10feb.b/7021016.d

Page 26

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

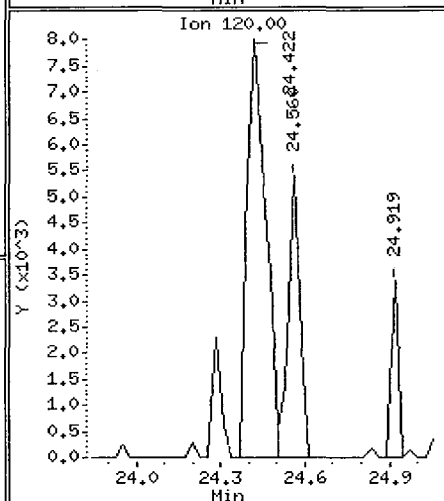
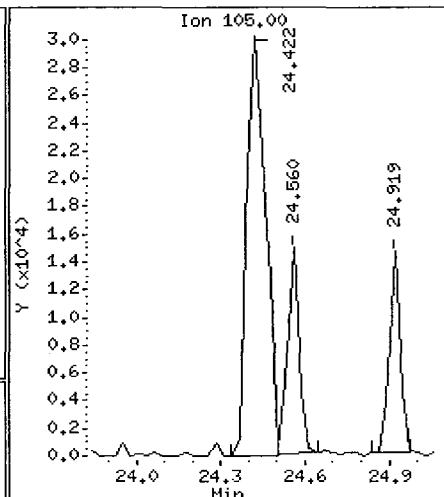
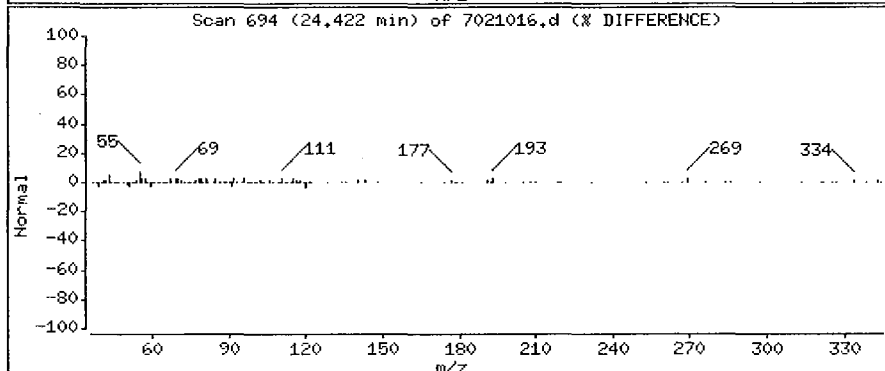
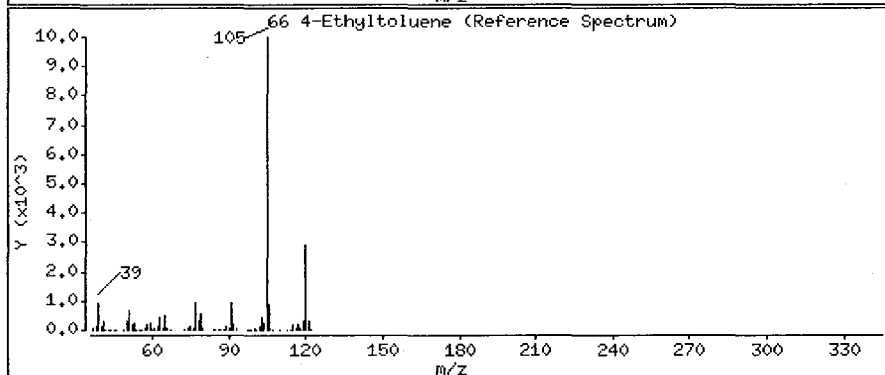
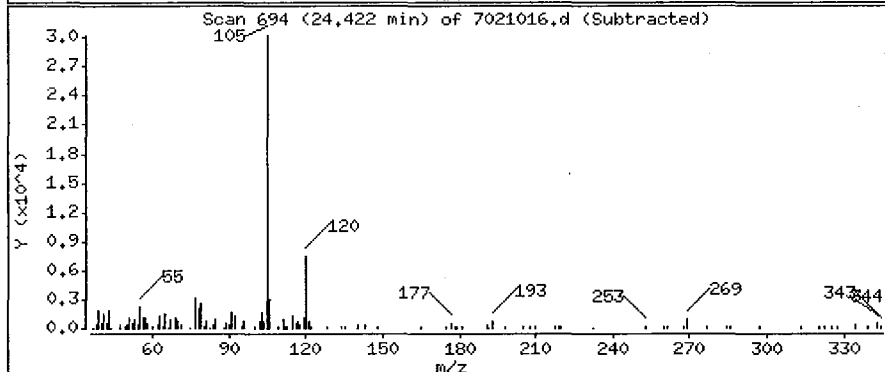
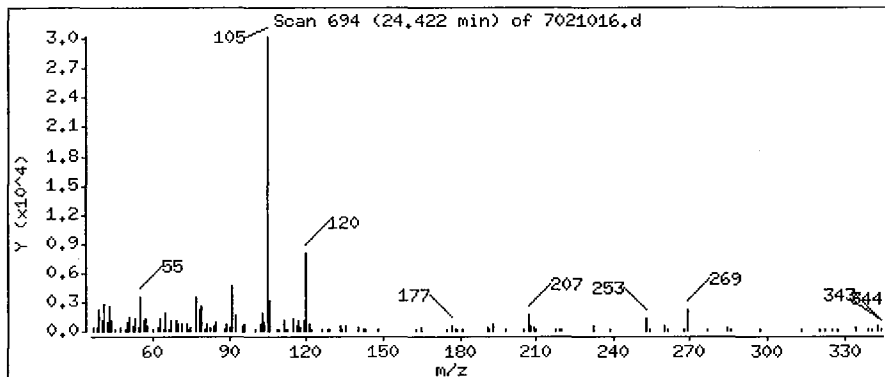
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.8442 PPBV



0040

SCOEP00031712

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

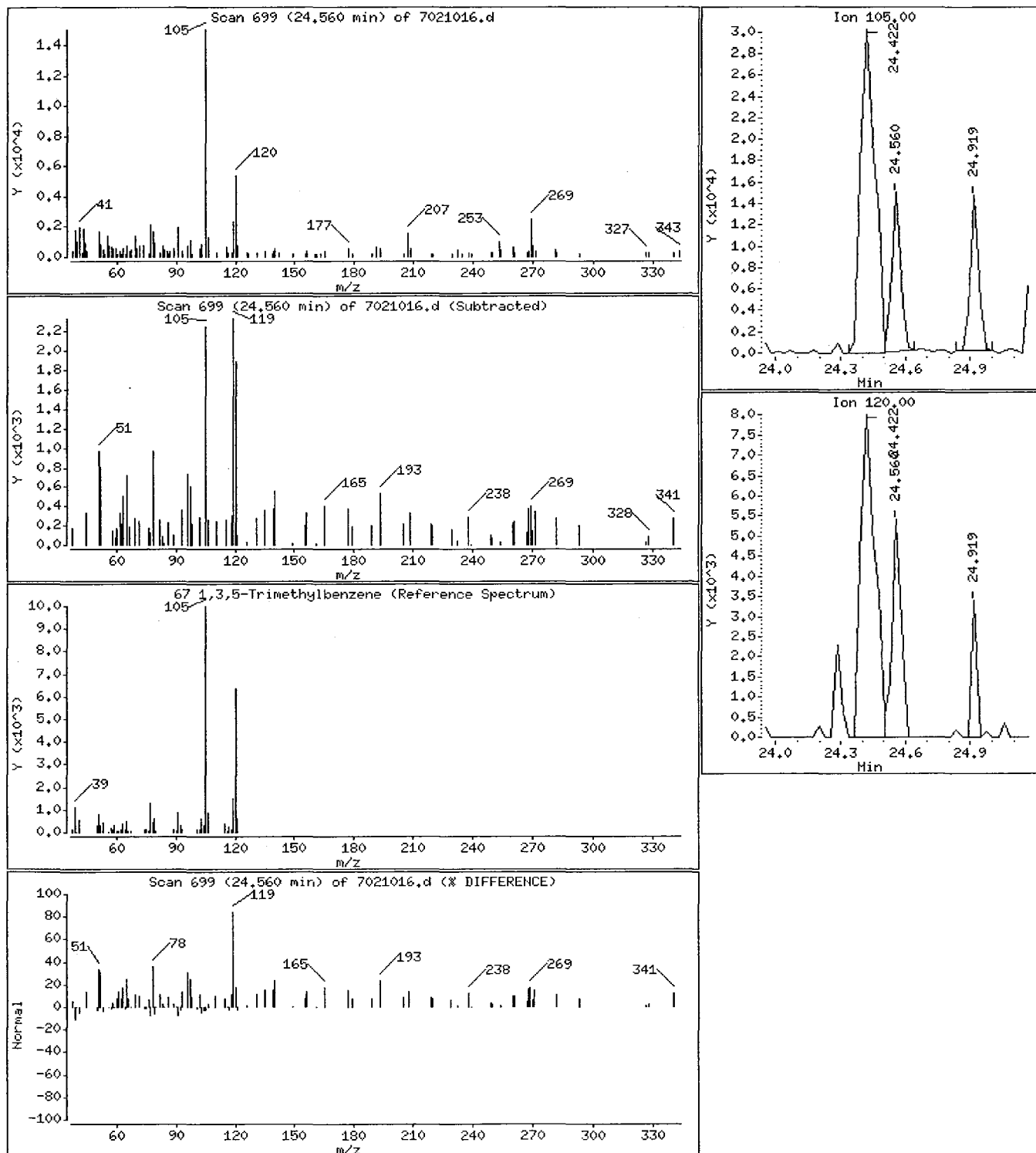
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2839 PPBW



0041

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

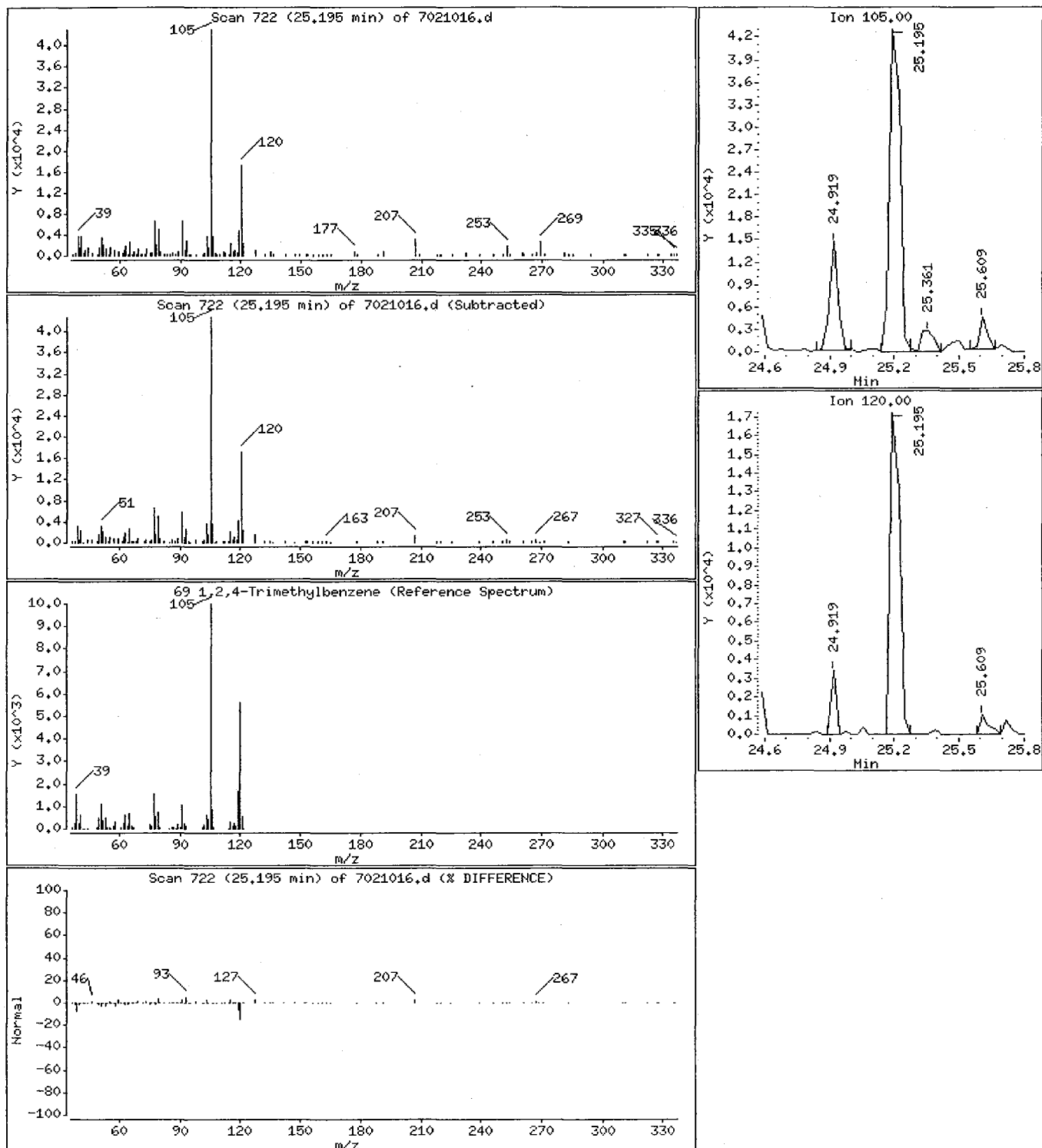
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 1.004 PPBV



0042

SCOEPA00031714

Date : 10-FEB-2005 20:08

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33916

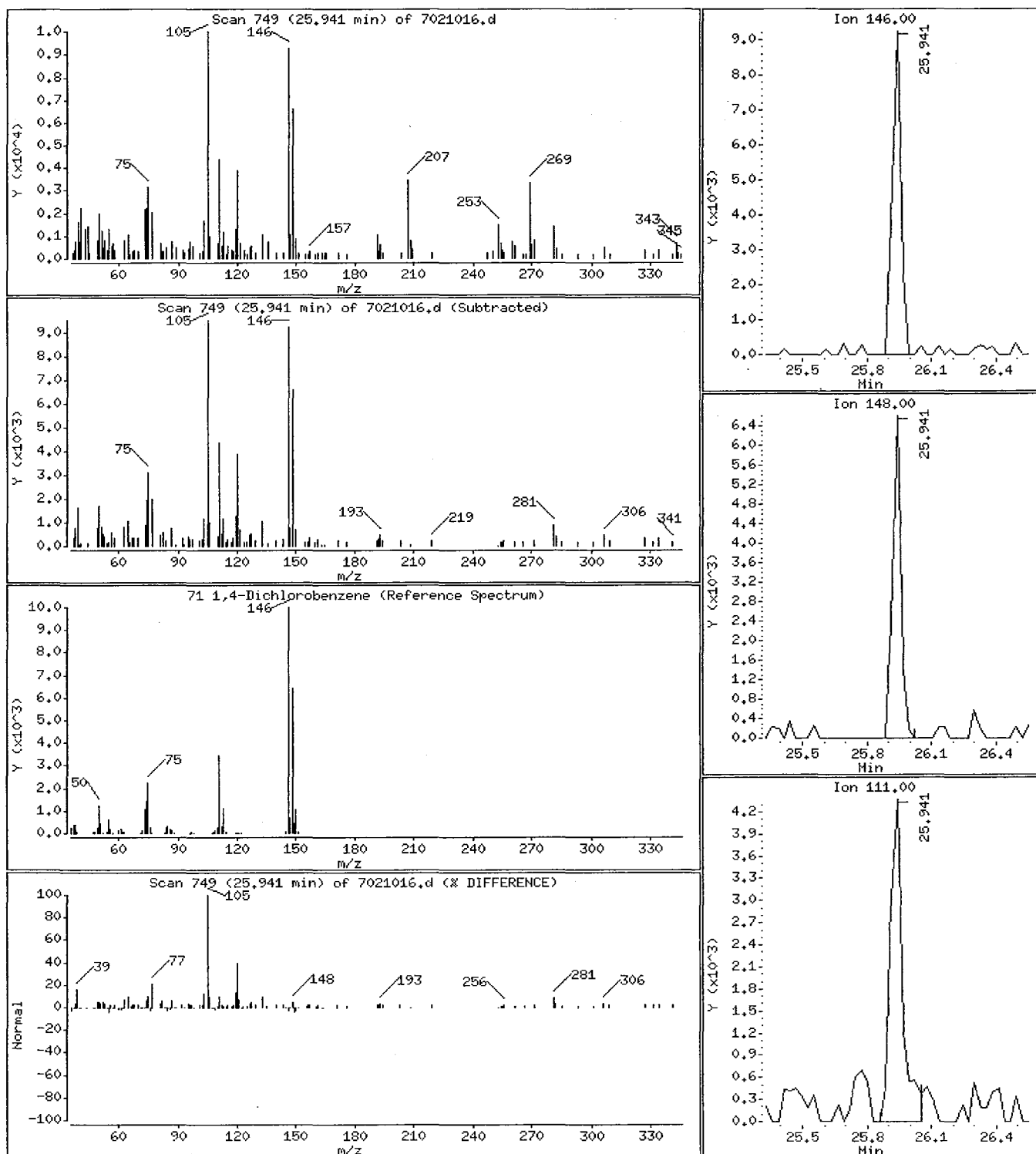
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

71 1,4-Dichlorobenzene

Concentration: 0.2416 PPEV



0043

AIR TOXICS LTD.

SAMPLE NAME: #2, Fab 1, Shipping/Storage

ID#: 0502032-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021017	Date of Collection:	1/25/05
Dil. Factor:	1.79	Date of Analysis:	2/10/05 08:50 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	1.2	0.88	5.7
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.43	0.37	0.88
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
Bromomethane	0.18	Not Detected	0.70	Not Detected
Chloroethane	0.18	Not Detected	0.47	Not Detected
Freon 11	0.18	3.2	1.0	18
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Chloroform	0.18	0.096 J	0.87	0.47 J
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Carbon Tetrachloride	0.18	0.13 J	1.1	0.80 J
Benzene	0.18	0.91	0.57	2.9
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
Toluene	0.18	5.2	0.67	20
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.85	0.78	3.7
m,p-Xylene	0.18	2.8	0.78	12
o-Xylene	0.18	0.99	0.78	4.3
Styrene	0.18	0.16 J	0.76	0.70 J
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	0.25	0.88	1.2
1,2,4-Trimethylbenzene	0.18	0.83	0.88	4.1
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	0.19	1.1	1.1
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
Methylene Chloride	0.36	14	1.2	48
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
1,3-Butadiene	0.90	0.18 J	2.0	0.39 J
Acetone	0.90	14	2.1	34
Carbon Disulfide	0.90	0.22 J	2.8	0.70 J

AIR TOXICS LTD.

SAMPLE NAME: #2, Fab 1, Shipping/Storage

ID#: 0502032-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021017	Date of Collection:	1/25/05
Dil. Factor:	1.79	Date of Analysis:	2/10/05 08:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.90	120 E	2.2	290 E
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	2.3	2.6	6.9
Hexane	0.90	0.80 J	3.2	2.8 J
Tetrahydrofuran	0.90	0.26 J	2.6	0.76 J
Cyclohexane	0.90	0.30 J	3.1	1.0 J
1,4-Dioxane	0.90	Not Detected	3.2	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	0.90	2.9	3.7	12
2-Hexanone	0.90	0.089 J	3.7	0.36 J
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
4-Ethyltoluene	0.90	0.78 J	4.4	3.8 J
Ethanol	0.90	10	1.7	19
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
Heptane	0.90	0.66 J	3.7	2.7 J
Cumene	0.90	Not Detected	4.4	Not Detected
Propylbenzene	0.90	0.16 J	4.4	0.76 J
Naphthalene	0.90	Not Detected	4.7	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021017.d
Lab Smp Id: 0502032-02A
Inj Date : 10-FEB-2005 20:50
Operator : nk Inst ID: msd7.i
Smp Info : 500ml can#33999
Misc Info : 7.5"Hg-5psi Clayton
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 19:17 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.79000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL		TARGET RANGE	RATIO
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====

* 29 Bromochloromethane			CAS #: 74-97-5					
16.331	16.331	(1.000)	130	427525	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	331075			26.96- 126.96	77.44
16.331	16.331	(1.000)	49	746332			126.50- 226.50	174.57

* 38 1,4-Difluorobenzene			CAS #: 540-36-3					
17.794	17.794	(1.000)	114	1916549	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	332875			0.00- 67.73	17.37

* 54 Chlorobenzene-d5			CAS #: 3114-55-4					
22.130	22.130	(1.000)	117	1387003	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	838120			9.26- 109.26	60.43

\$ 34 1,2-Dichloroethane-d4			CAS #: 17060-07-0					
17.214	17.214	(1.054)	65	922705	10.4789	10.479	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	429880			0.17- 100.17	46.59

\$ 45 Toluene-d8			CAS #: 2037-26-5					
19.893	19.893	(1.118)	98	1647258	10.0744	10.074	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	201141			0.00- 61.87	12.21

0046

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1160503			21.49- 121.49	70.45

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.952	23.953	(1.082)	174	755151	10.5393	10.539	80.00- 120.00	100.00
23.952	23.953	(1.082)	95	1164183			102.12- 202.12	154.17
23.952	23.953	(1.082)	176	714572			47.05- 147.05	94.63

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	224692	0.64839	1.161	80.00- 120.00	100.00
5.975	5.947	(0.366)	87	74183			0.00- 82.65	33.02

4 Chloromethane						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	23796	0.23818	0.4263	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	7357			0.00- 84.65	30.92

7 1,3-Butadiene						CAS #: 106-99-0		
8.295	8.295	(0.508)	54	9056	0.09943	0.1780	80.00- 120.00	100.00(a)
8.295	8.295	(0.508)	39	17247			48.03- 148.03	190.45

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	532237	1.76627	3.162	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	352649			14.29- 114.29	66.26

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	239307	5.65808	10.128	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	53581			0.00- 76.71	22.39
12.050	12.050	(0.738)	46	94722			0.00- 90.17	39.58

16 Acetone						CAS #: 67-64-1		
12.823	12.824	(0.785)	43	1807129	8.02177	14.359	80.00- 120.00	100.00
12.823	12.824	(0.785)	58	484944			0.00- 78.78	26.84

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	14247770	66.9122	119.77	80.00- 120.00	100.00(A)
13.238	13.238	(0.811)	43	2722533			0.00- 69.75	19.11
13.238	13.238	(0.811)	59	504650			0.00- 53.72	3.54

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	35088	0.12540	0.2245	80.00- 120.00	100.00(a)

20 Methylene Chloride						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	692084	7.76304	13.896	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	1070662			96.36- 196.36	154.70
13.735	13.735	(0.841)	51	310642			0.00- 93.42	44.89

0047

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	75830	0.44888	0.8035	80.00- 120.00	100.00(a)
14.591	14.563	(0.893)	43	134238			15.23- 115.23	177.02
14.563	14.563	(0.892)	86	12949			0.00- 65.23	17.08

28 2-Butanone						CAS #: 78-93-3		
15.972	15.972	(0.978)	72	60972	1.30608	2.338	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	379132			1029.22-1129.22	621.81
15.972	15.972	(0.978)	57	28140			0.00- 89.21	46.15

23 Tetrahydrofuran						CAS #: 109-99-9		
16.331	16.331	(1.000)	42	18677	0.14417	0.2581	80.00- 120.00	100.00(a)
16.303	16.331	(0.998)	71	4472			0.00- 84.14	23.94
16.331	16.331	(1.000)	72	6268			0.00- 86.54	33.56

30 Chloroform						CAS #: 67-66-3		
16.413	16.414	(1.005)	83	10994	0.05376	0.09623	80.00- 120.00	100.00(a)
16.413	16.414	(1.005)	85	6875			16.09- 116.09	62.53

31 Cyclohexane						CAS #: 110-82-7		
16.662	16.662	(1.020)	84	15421	0.16510	0.2955	80.00- 120.00	100.00(a)
16.662	16.662	(1.020)	56	50967			93.37- 193.37	330.50
16.662	16.662	(1.020)	41	31398			30.80- 130.80	203.61

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.855	16.883	(1.032)	119	10970	0.07146	0.1279	80.00- 120.00	100.00(a)
16.855	16.883	(1.032)	117	9796			61.49- 161.49	89.30

35 Benzene						CAS #: 71-43-2		
17.214	17.214	(0.967)	78	141241	0.50779	0.9090	80.00- 120.00	100.00
17.214	17.214	(0.967)	77	33648			0.00- 72.07	23.82

37 Heptane						CAS #: 142-82-5		
17.435	17.435	(0.980)	43	59429	0.36593	0.6550	80.00- 120.00	100.00(a)
17.435	17.435	(0.980)	57	28089			1.42- 101.42	47.26
17.463	17.435	(0.981)	100	5940			0.00- 66.93	10.00

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.727	19.727	(1.109)	43	289259	1.61002	2.882	80.00- 120.00	100.00
19.727	19.727	(1.109)	58	103085			0.00- 87.49	35.64
19.727	19.727	(1.109)	85	48497			0.00- 66.91	16.77

46 Toluene						CAS #: 108-88-3		
20.003	20.004	(1.124)	91	932889	2.92756	5.240	80.00- 120.00	100.00
20.003	20.004	(1.124)	92	574607			12.22- 112.22	61.59

0048

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	(PPBV)	(PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
50 2-Hexanone						CAS #: 591-78-6		
20.942	20.942	(0.946)	58	4511	0.04978	0.08911	80.00- 120.00	100.00(aM)
20.666	20.942	(0.934)	43	18082			137.44- 237.44	400.84
20.749	20.942	(0.938)	100	984			0.00- 68.76	21.81

56 Ethyl Benzene						CAS #: 100-41-4		
22.268	22.268	(1.006)	106	53961	0.47385	0.8482	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	178740			294.68- 394.68	331.24

57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	216523	1.55459	2.783	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	492266			168.06- 268.06	227.35

58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	62967	0.55513	0.9937	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	134315			189.62- 289.62	213.31

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	16233	0.09245	0.1655	80.00- 120.00	100.00(a)
23.069	23.096	(1.042)	78	20137			7.14- 107.14	124.05

65 Propylbenzene						CAS #: 103-65-1		
24.284	24.284	(1.097)	91	32907	0.08685	0.1554	80.00- 120.00	100.00(a)
24.284	24.284	(1.097)	120	6946			0.00- 69.13	21.11

66 4-Ethyltoluene						CAS #: 622-96-8		
24.422	24.450	(1.104)	105	131242	0.43427	0.7773	80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	33865			0.00- 75.29	25.80

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	37382	0.13942	0.2496	80.00- 120.00	100.00
24.560	24.560	(1.110)	120	14515			0.00- 89.72	38.83

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	118620	0.46245	0.8278	80.00- 120.00	100.00
25.195	25.195	(1.139)	120	40676			0.00- 87.12	34.29

71 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.941	25.941	(1.172)	146	20040	0.10464	0.1873	80.00- 120.00	100.00
25.941	25.941	(1.172)	148	11342			12.91- 112.91	56.60
25.941	25.941	(1.172)	111	11594			0.00- 90.99	57.85

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.
- M - Compound response manually integrated.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7021017.d
Lab Smp Id: 0502032-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk

Calibration Date: 10-FEB-2005
Calibration Time: 00:57

Level: LOW
Sample Type: AIR

Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 7.5"Hg-5psi Clayton

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	427525	-8.06
38 1,4-Difluorobenze	2172345	1303407	3041283	1916549	-11.78
54 Chlorobenzene-d5	1516792	910075	2123509	1387003	-8.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0051

SCOEPAA00031723

Data File: /chem/msd7.i/7-10feb.b/7021017.d
Report Date: 11-Feb-2005 17:17

Page 1

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-10feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-02A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 7.5"Hg-5psi Clayton

	CONC	CONC	%	
SURROGATE COMPOUND	ADDED	RECOVERED	RECOVERED	LIMITS
	PPBV	PPBV		
\$ 34 1,2-Dichloroethane	10.000	10.479	104.79	70-130
\$ 45 Toluene-d8	10.000	10.074	100.74	70-130
\$ 63 Bromofluorobenzene	10.000	10.539	105.39	70-130

0052

SCOEPA00031724

Date : 10-FEB-2005 20:50

Client ID:

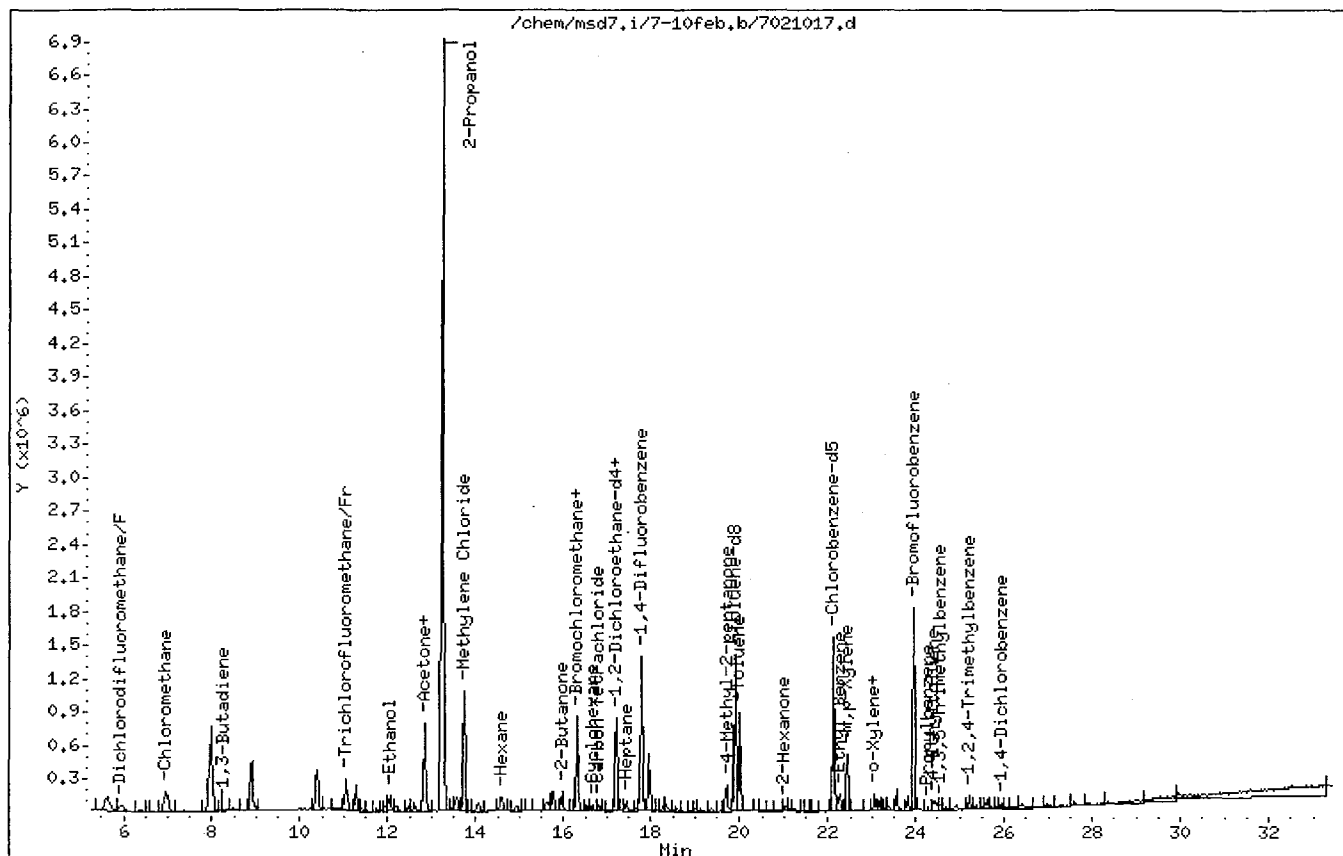
Instrument: msd7.i

Sample Info: 500ml can#33999

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0053

SCOEPAA00031725

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 2

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

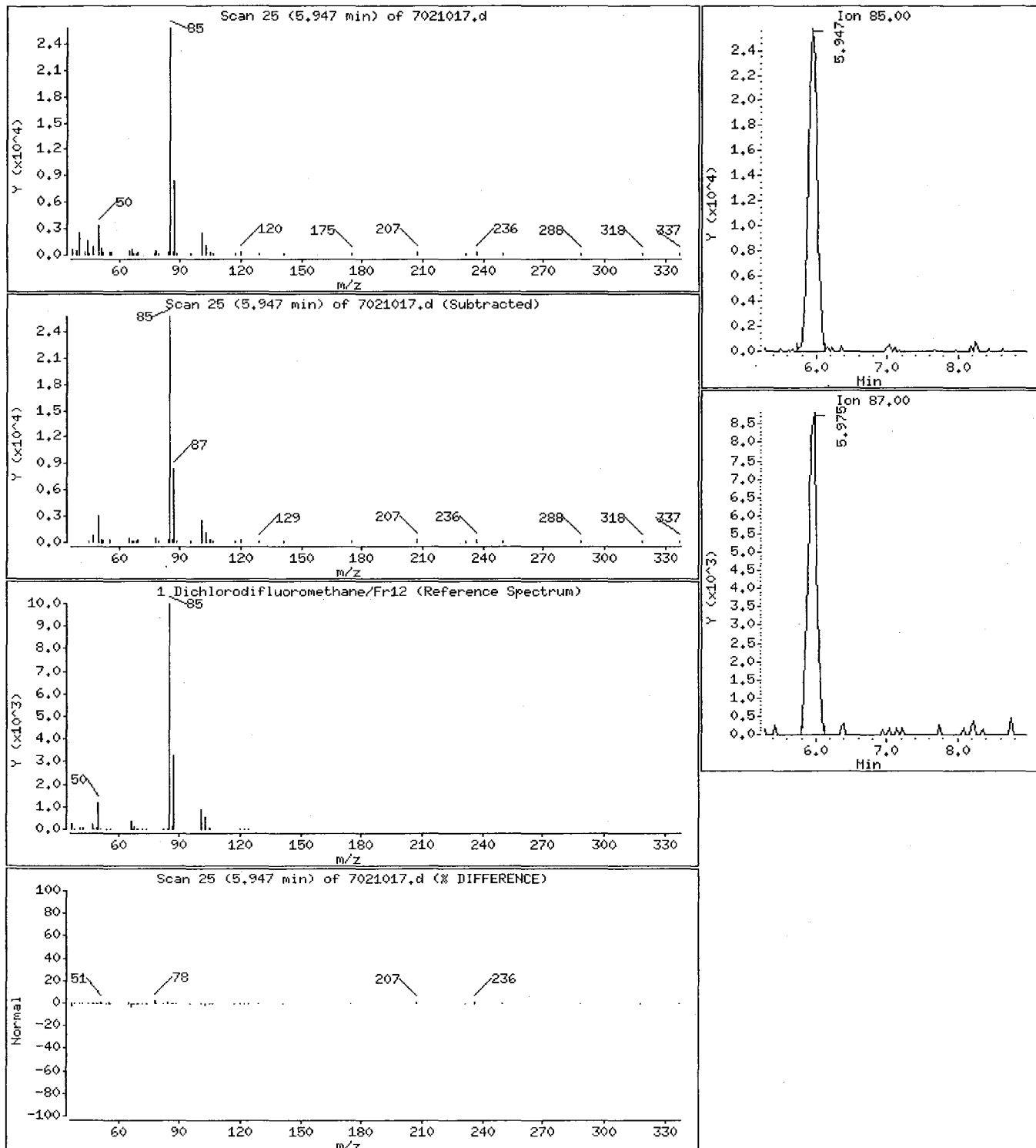
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.161 PPBV



0054

SCOEP00031726

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

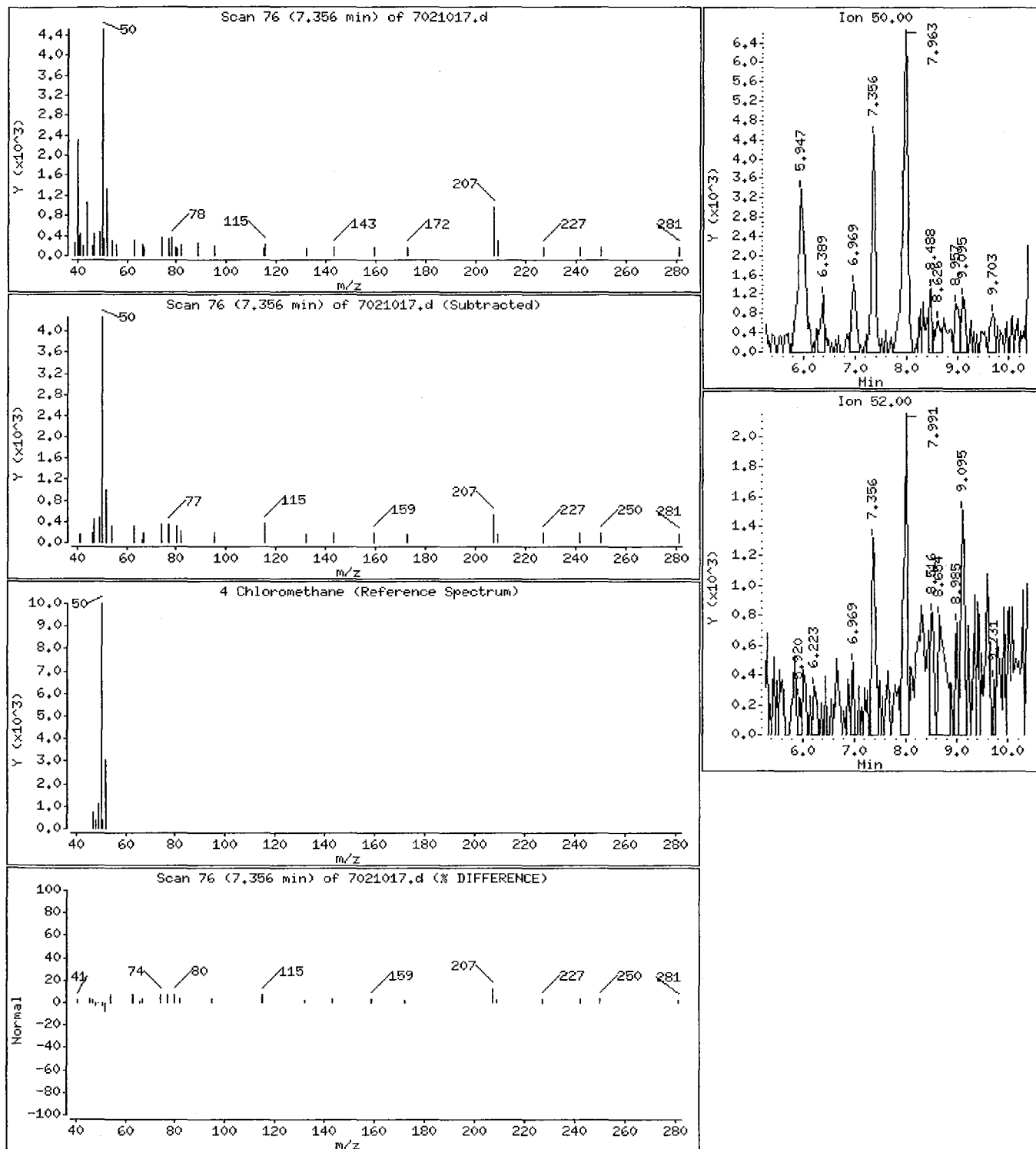
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4263 PPBV



0055

SCOEPAA00031727

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 4

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

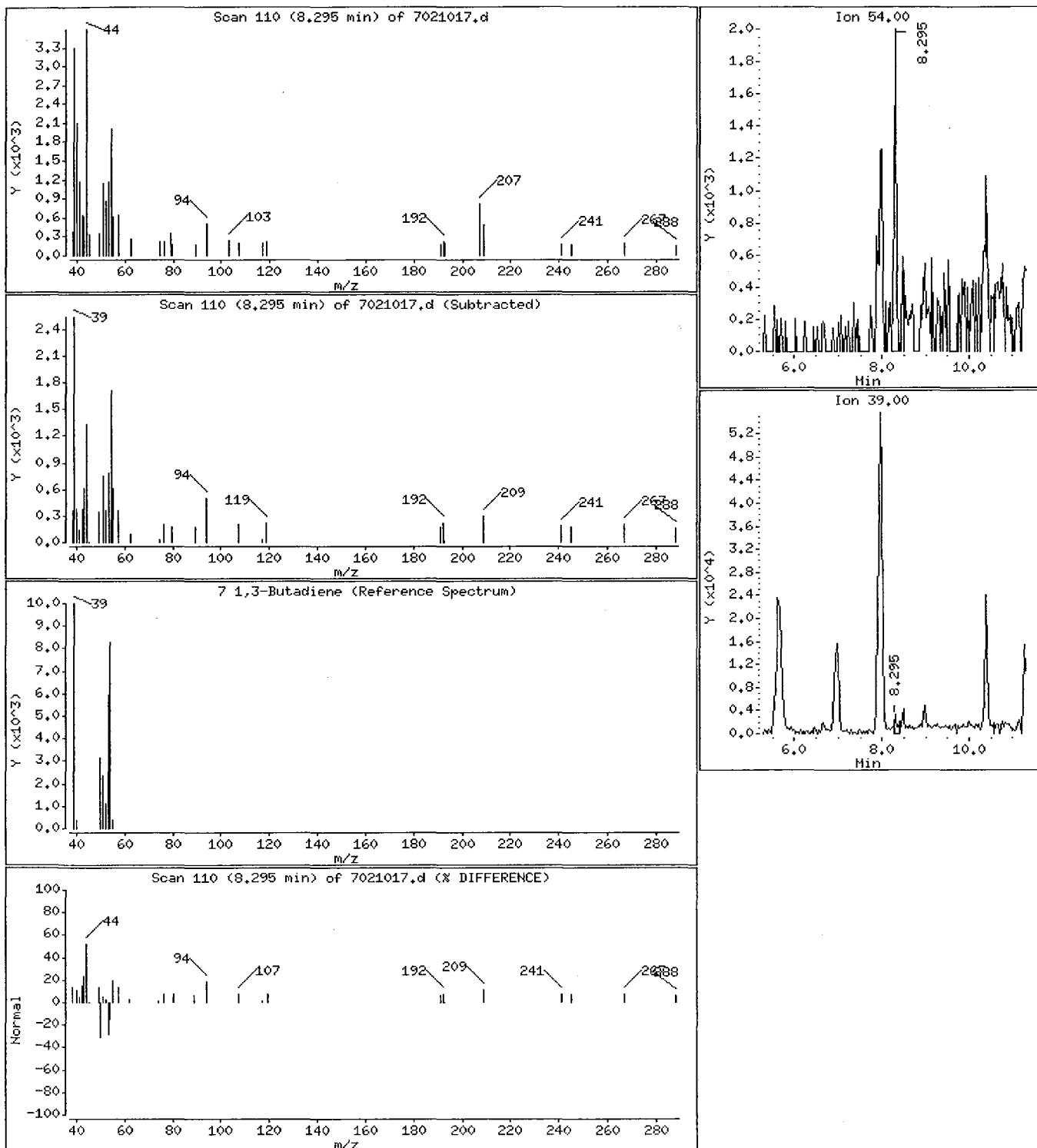
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1780 PPEV



0056

SCOEP00031728

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 5

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

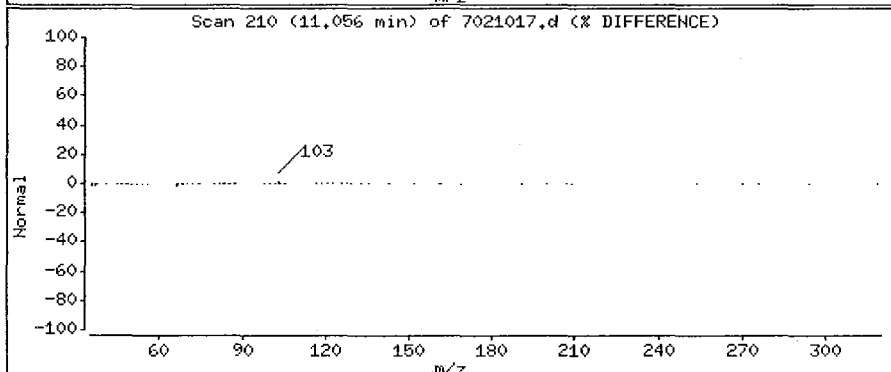
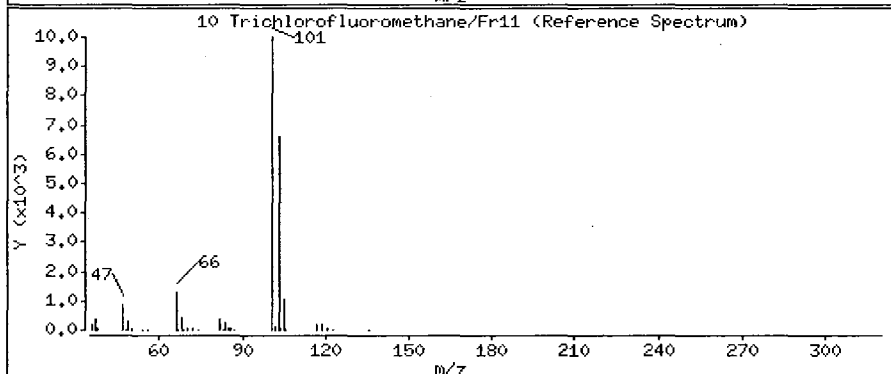
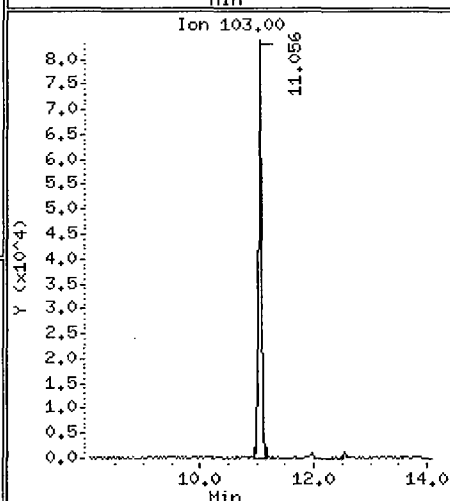
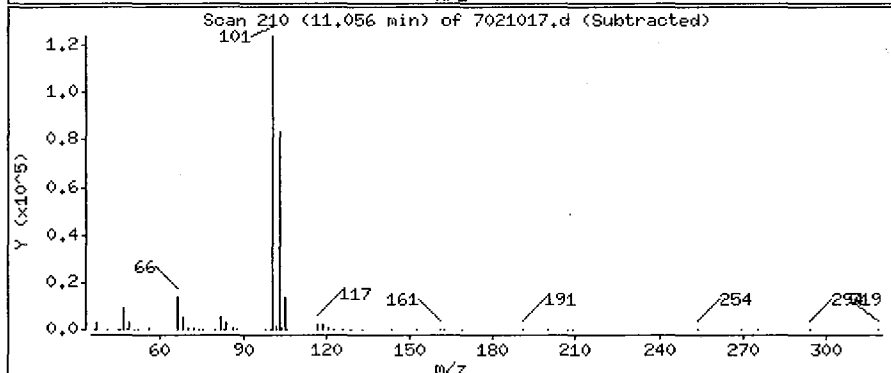
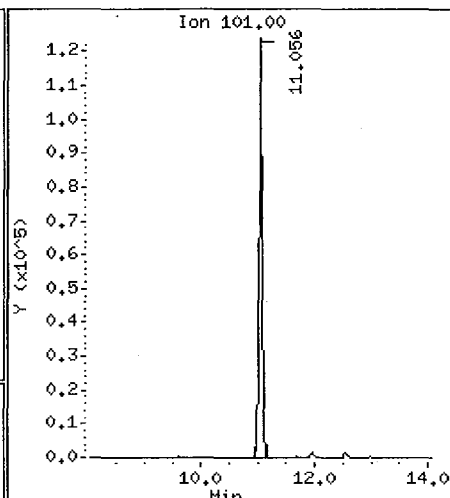
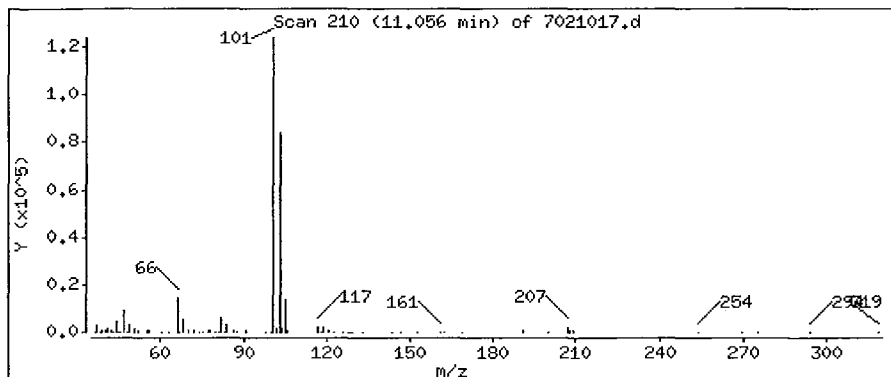
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 3.162 PPBV



0057

SCOEP00031729

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

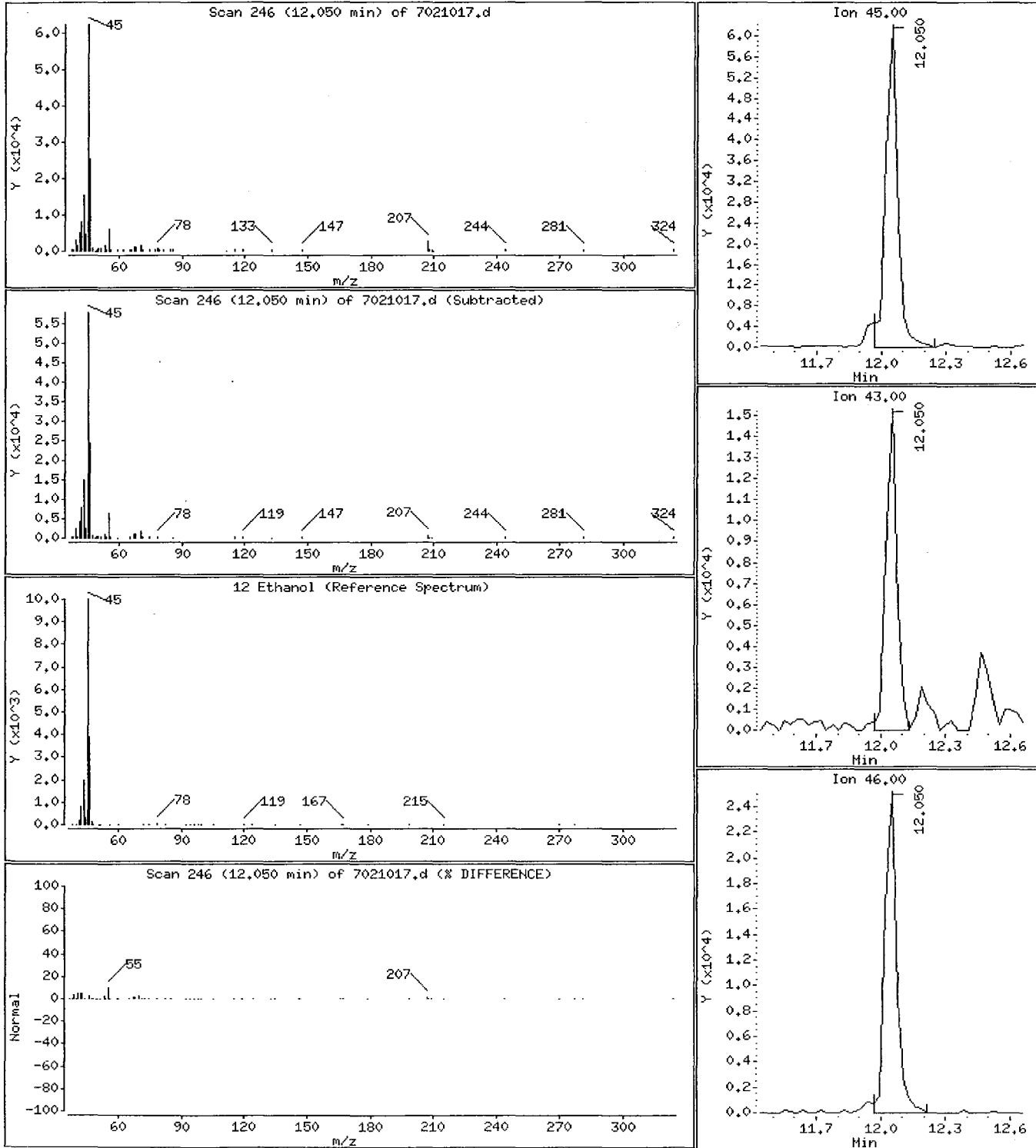
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 10.128 PPBV



0058

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 7

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

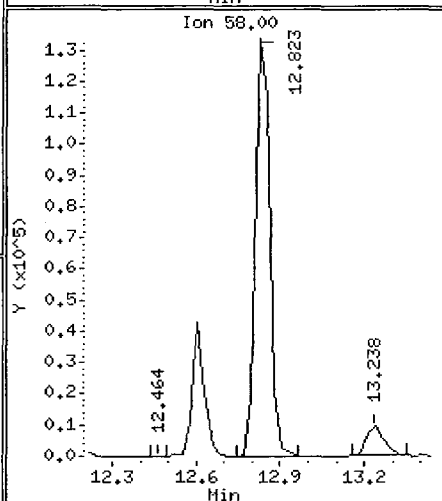
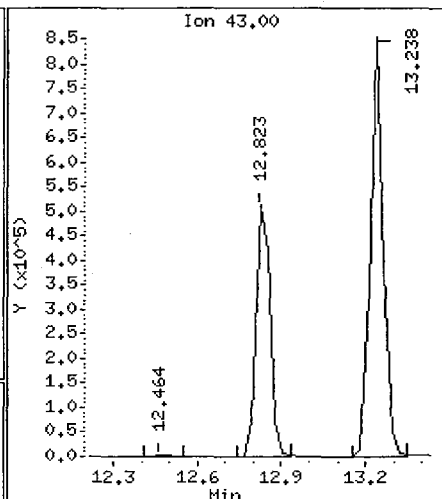
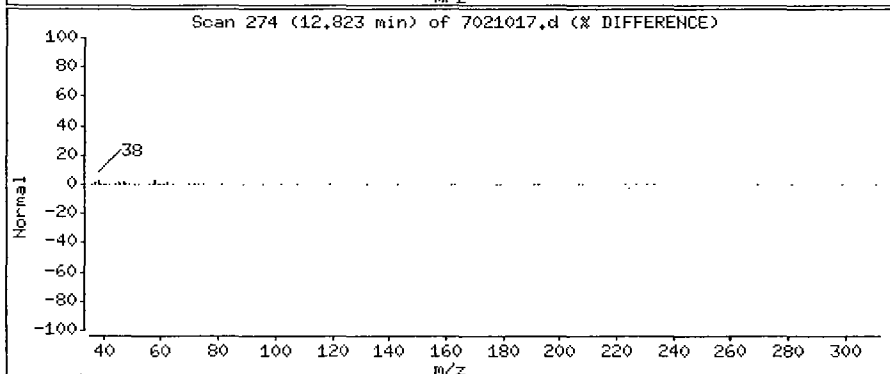
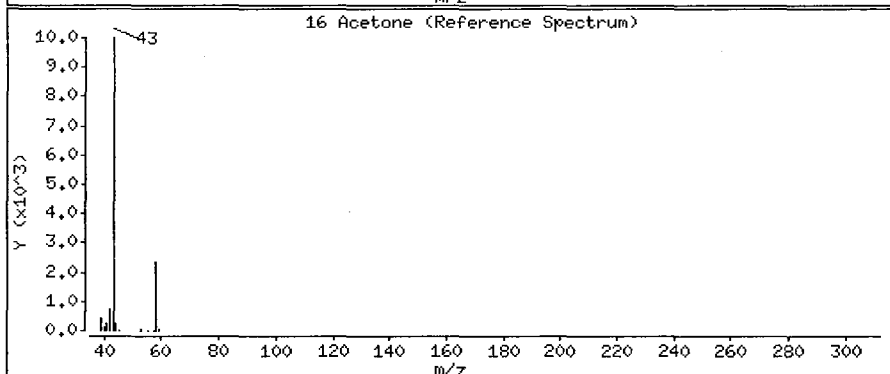
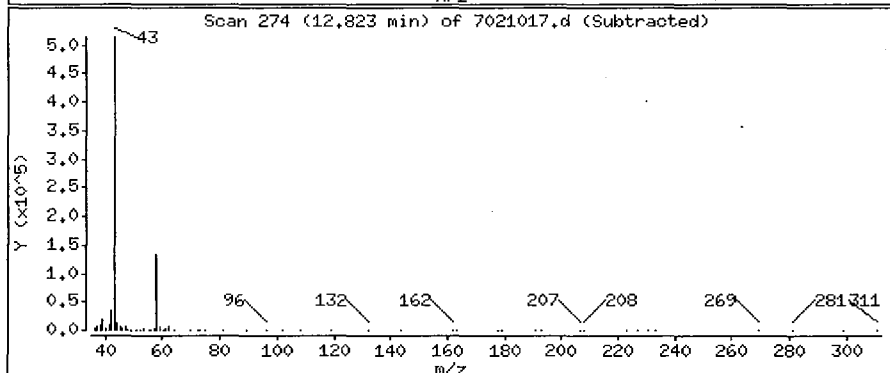
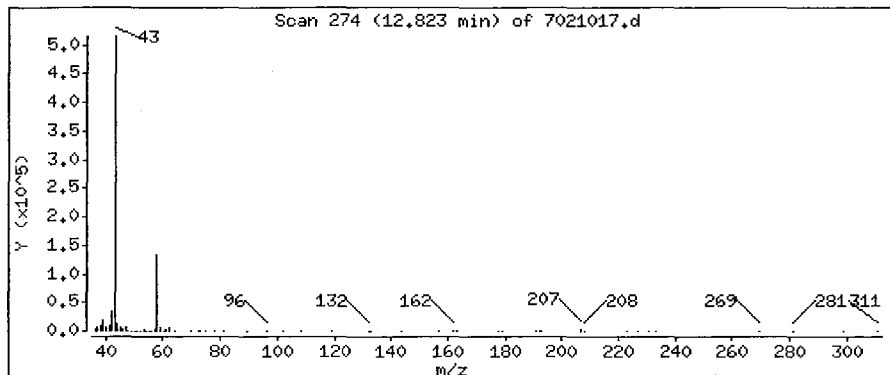
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 14,359 PPBV



0059

SCOEP00031731

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 8

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

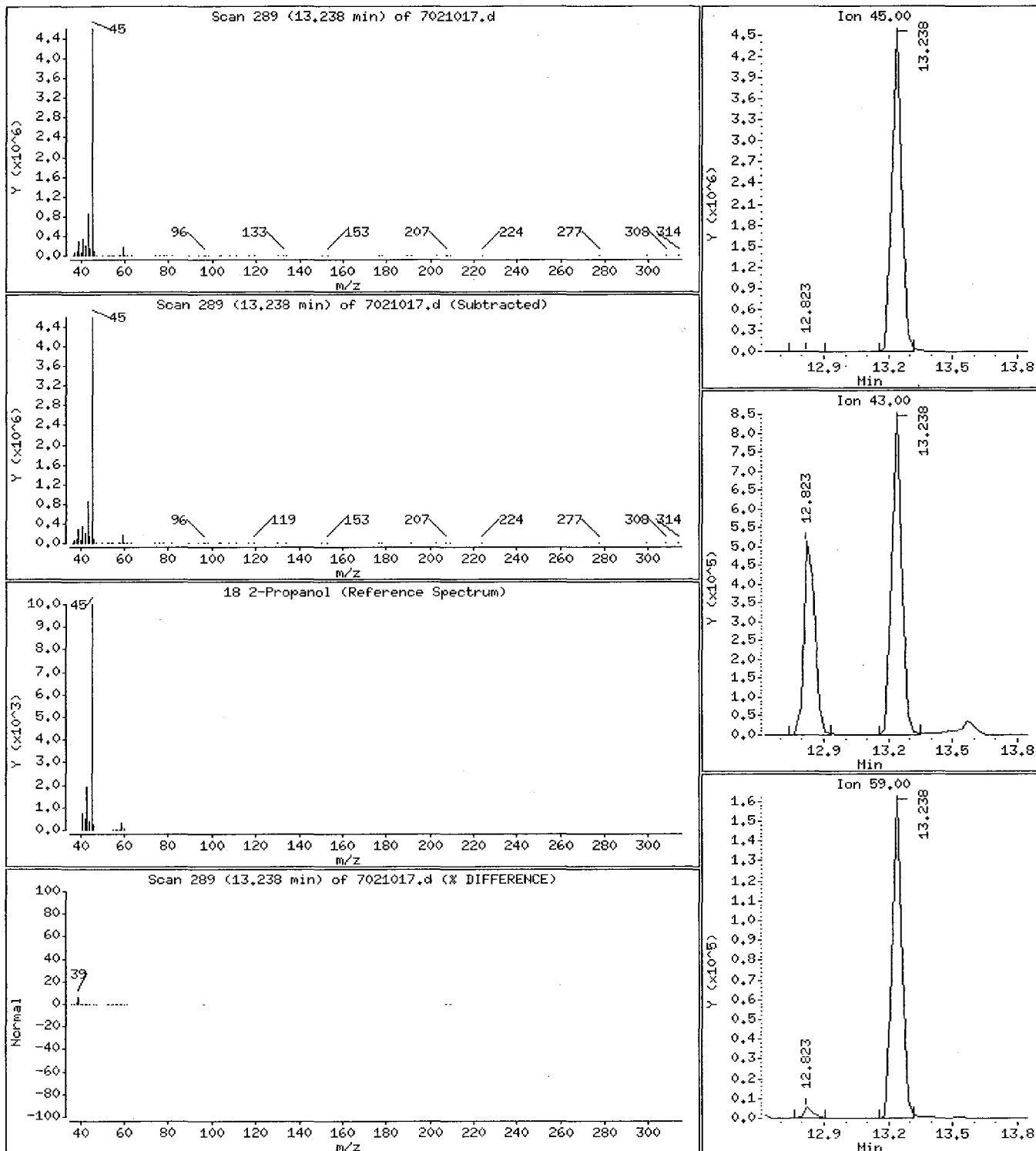
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

18 2-Propanol

Concentration: 119.77 PPBV



0060

SCOEPAA00031732

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 9

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

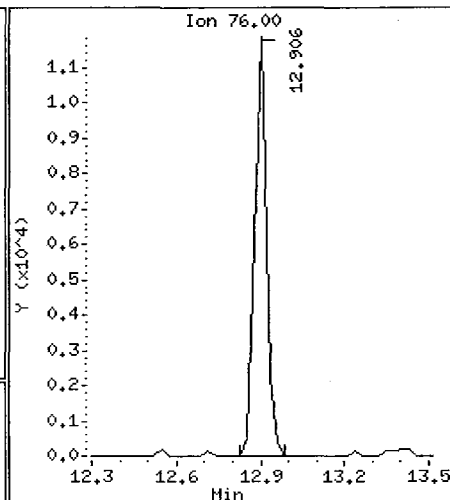
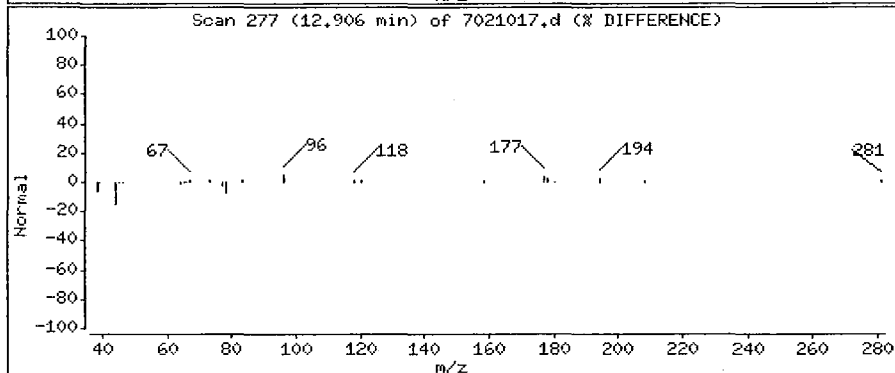
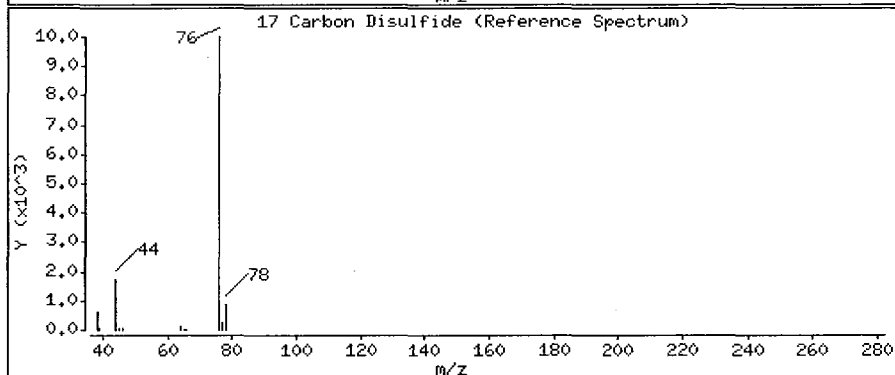
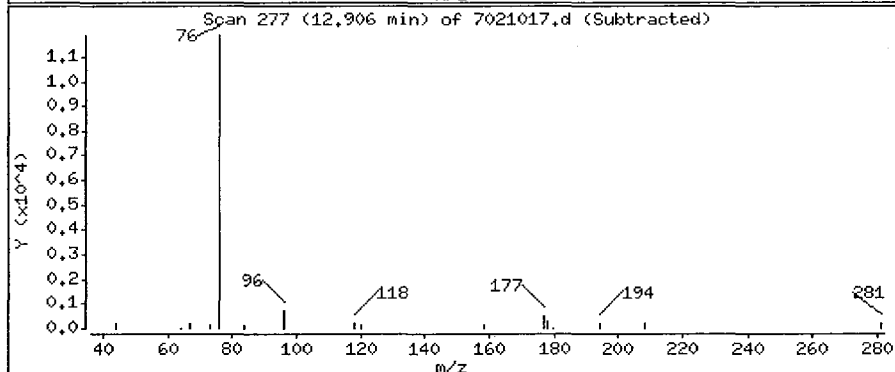
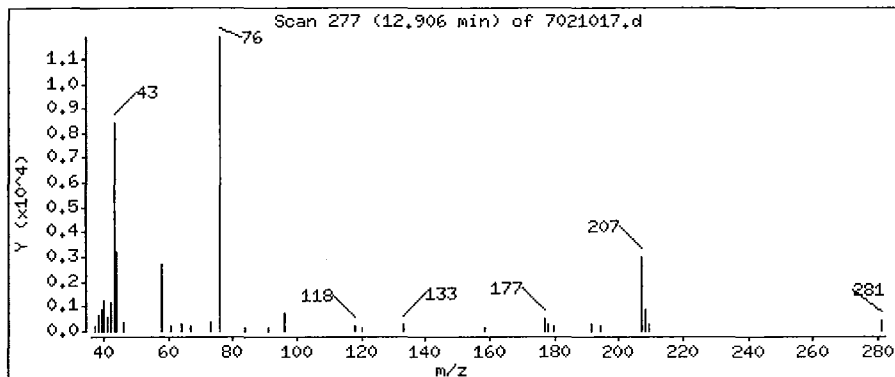
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.2245 PPBV



0061

SCOEPAA00031733

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 10

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

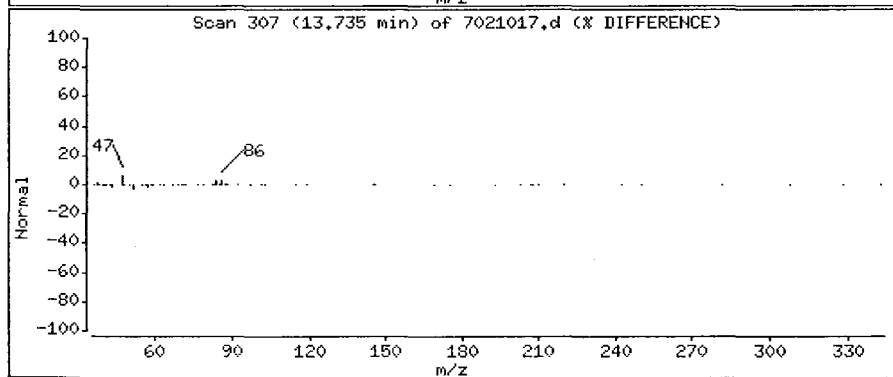
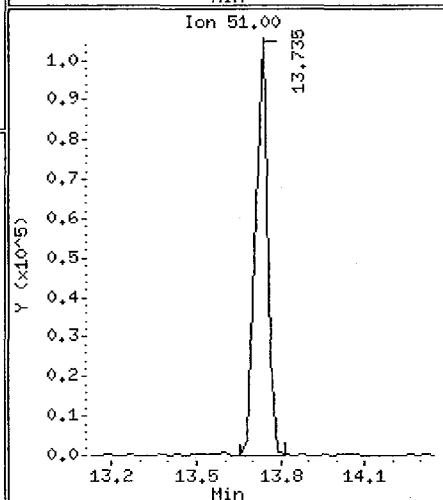
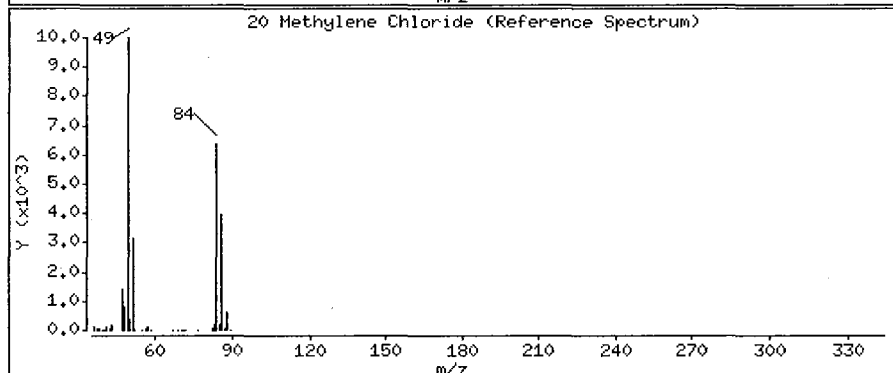
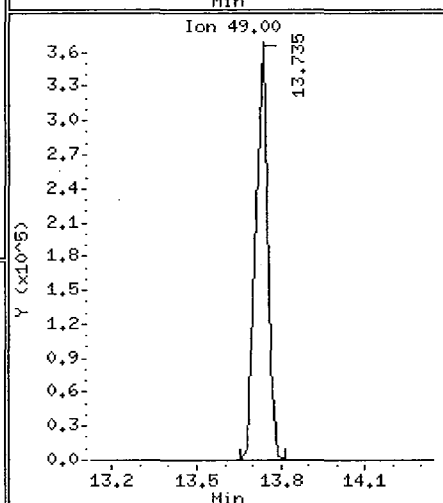
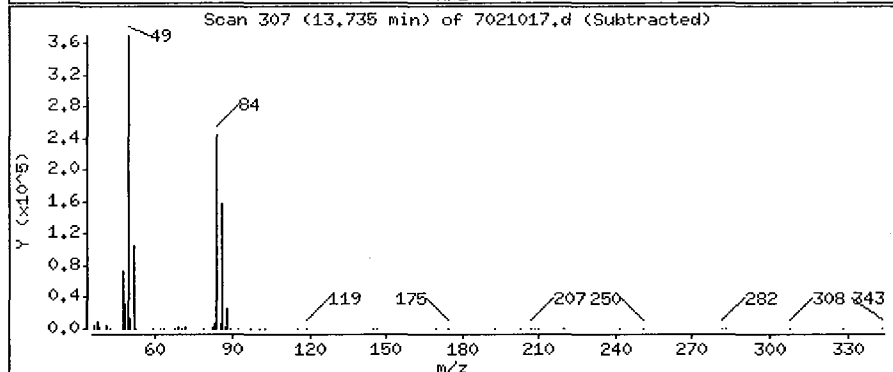
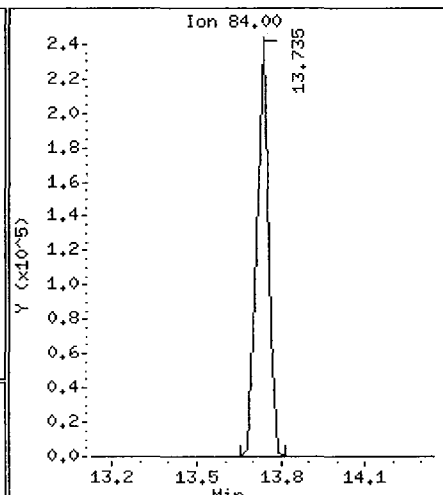
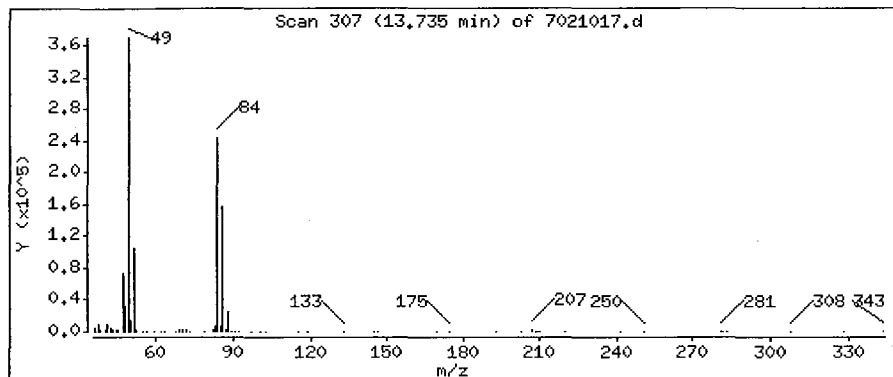
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 13.896 PPBW



0062

SCOEPA00031734

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 11

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

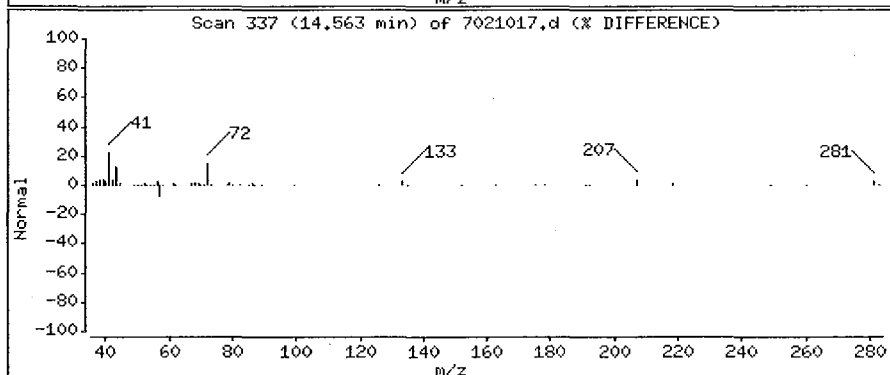
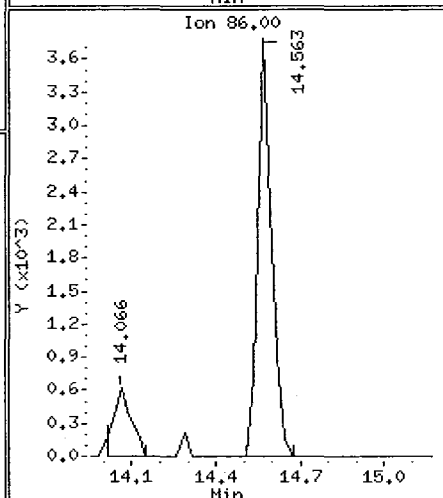
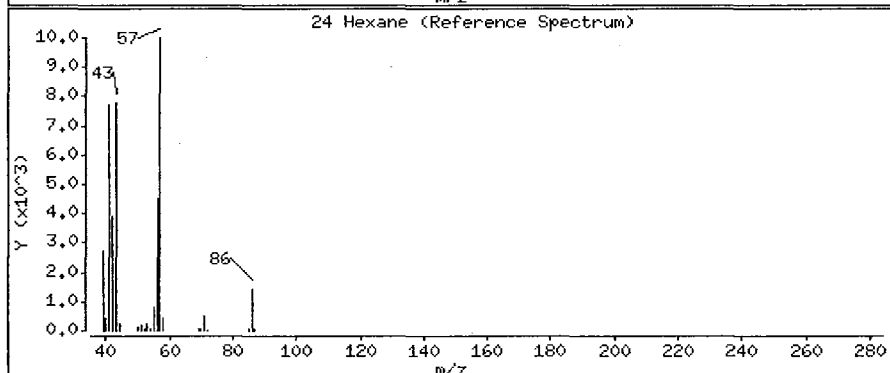
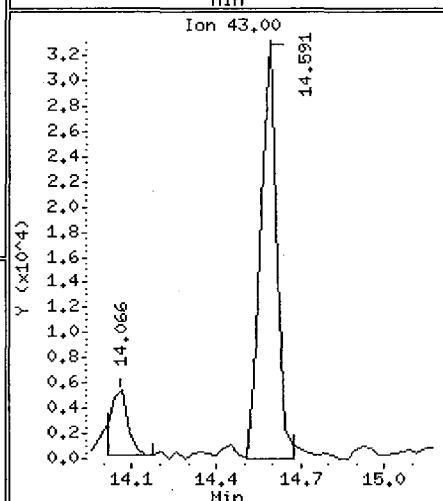
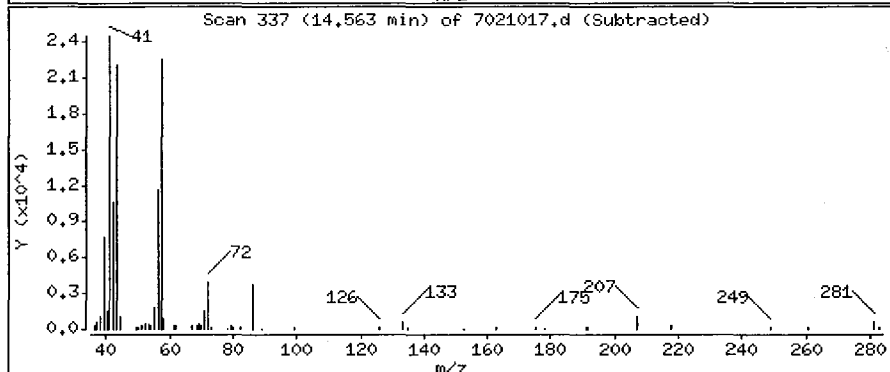
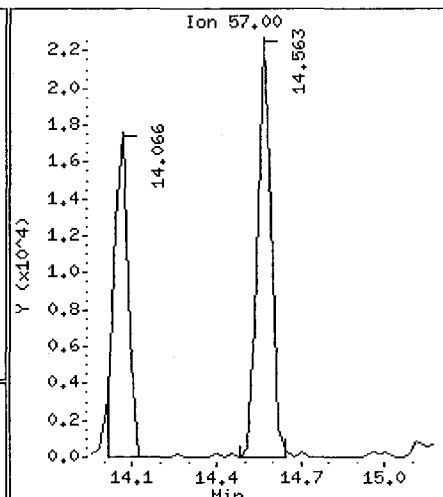
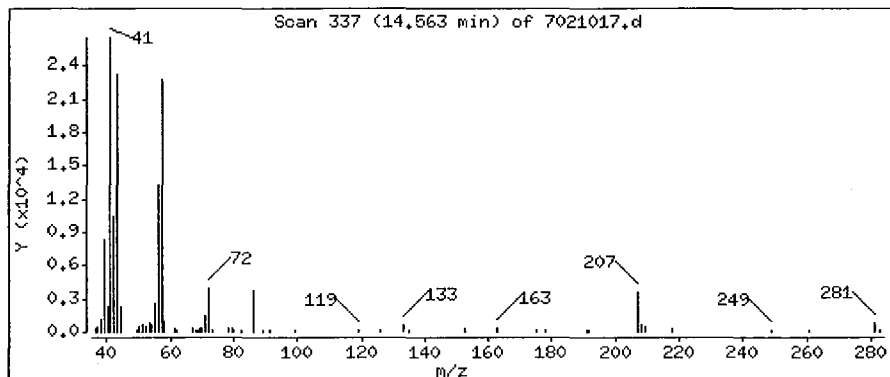
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

24 Hexane

Concentration: 0.8035 PPBV



0063

SCOEPAA00031735

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 12

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

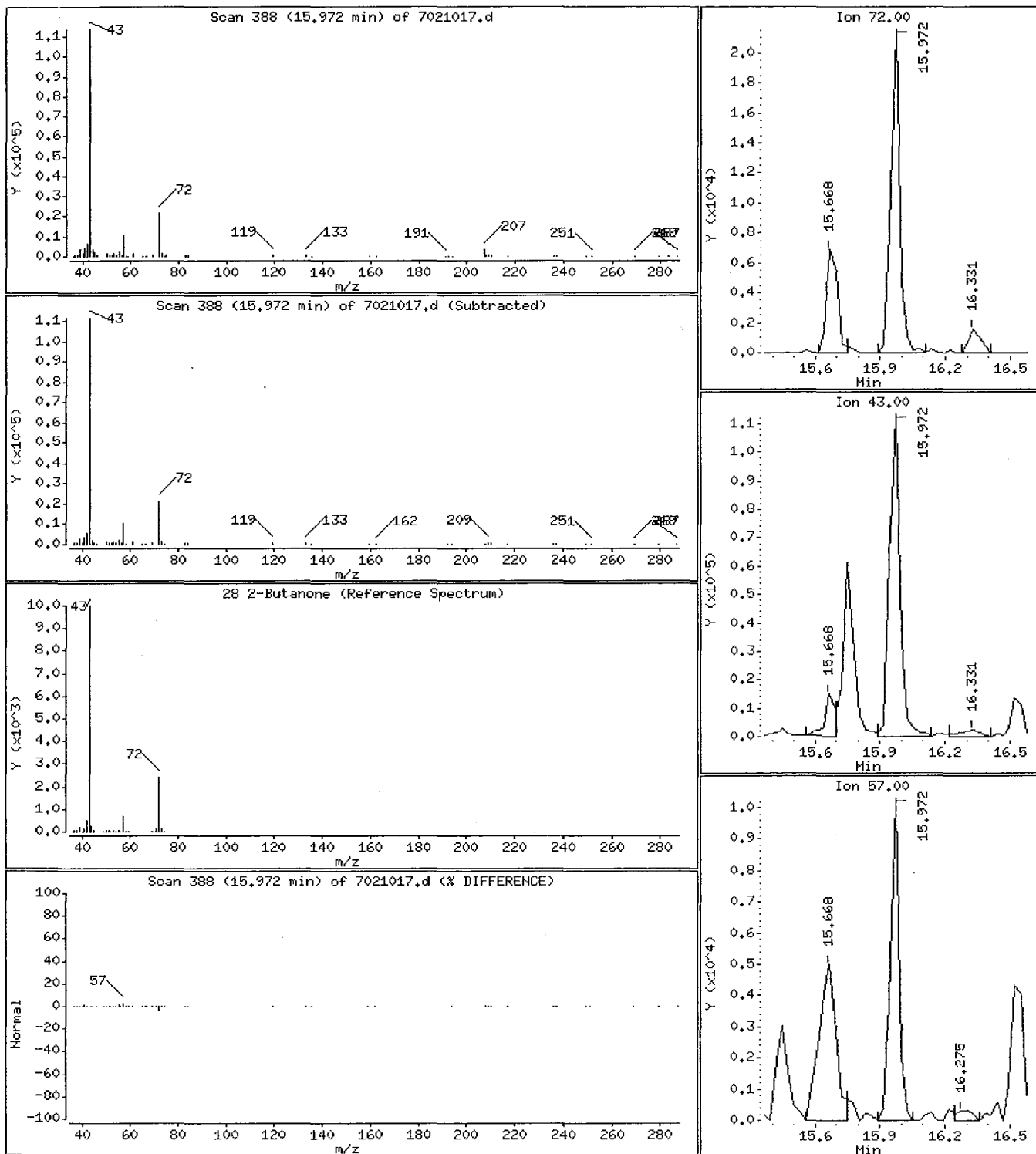
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 2.338 PPBV



0064

SCOEP00031736

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

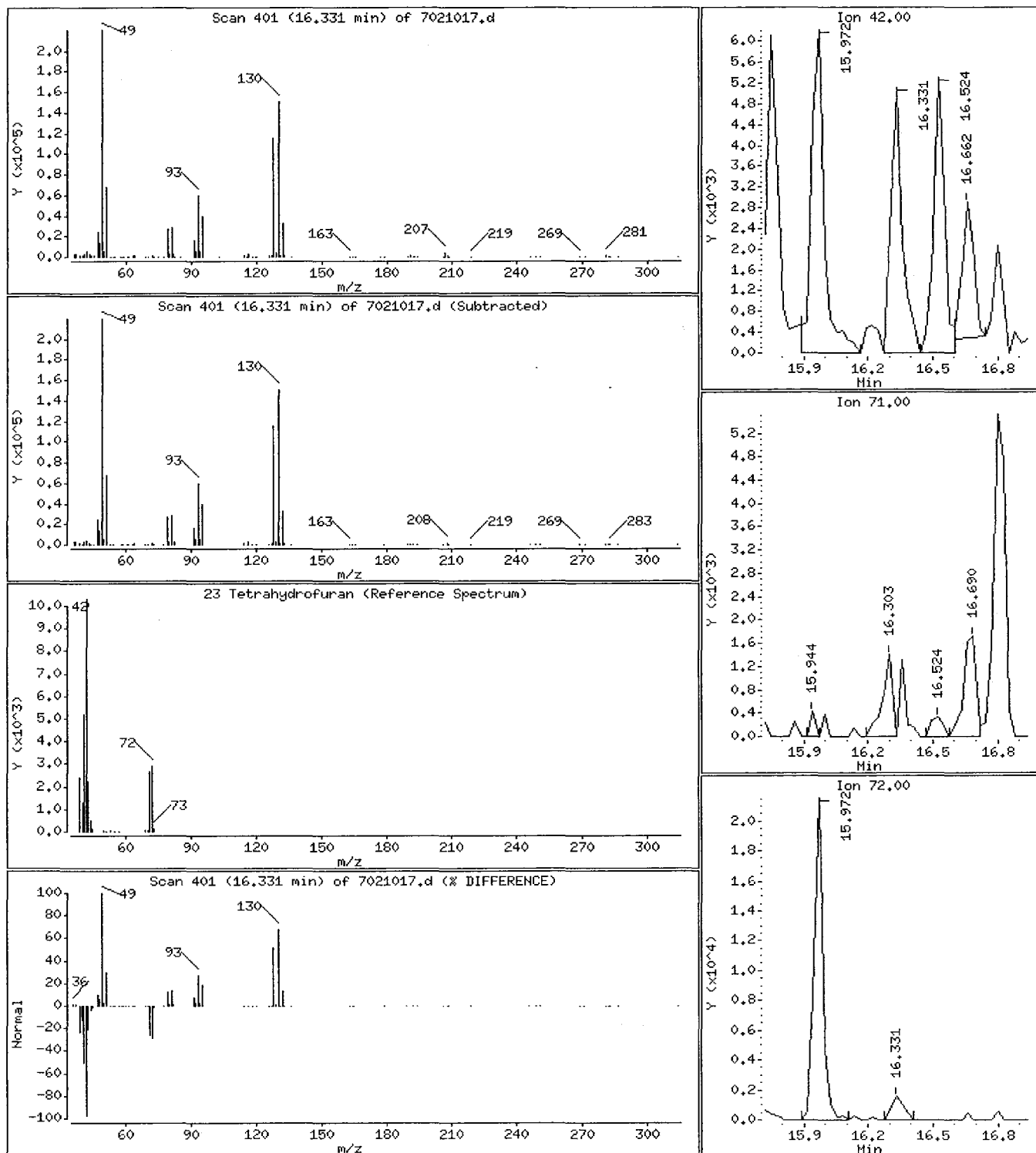
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.2581 PPBW



0065

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 14

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

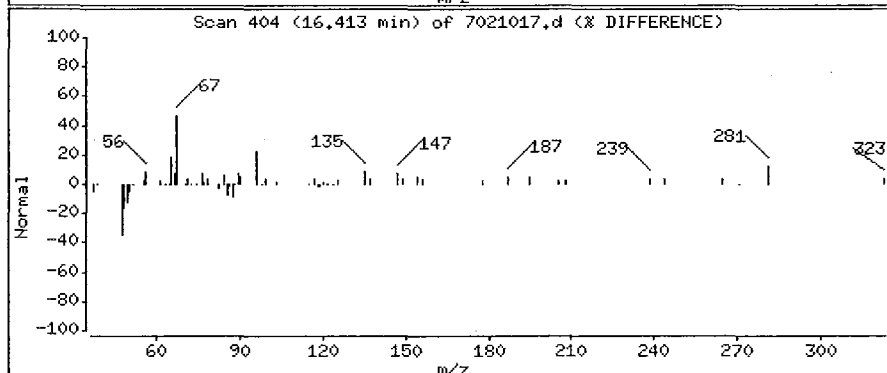
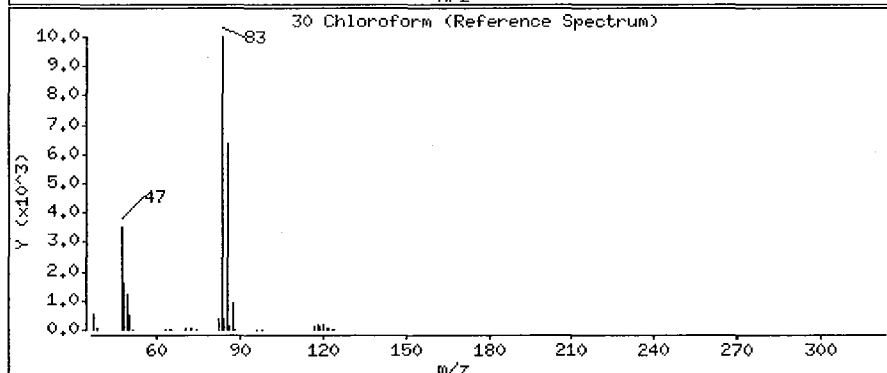
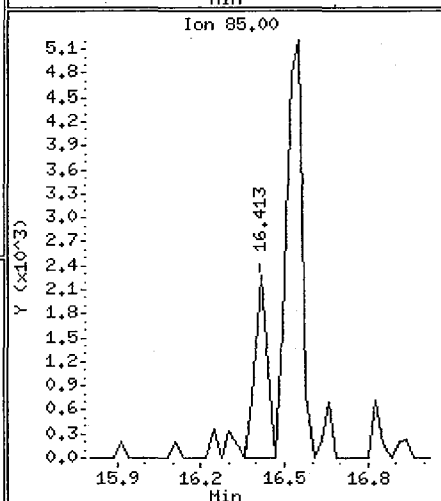
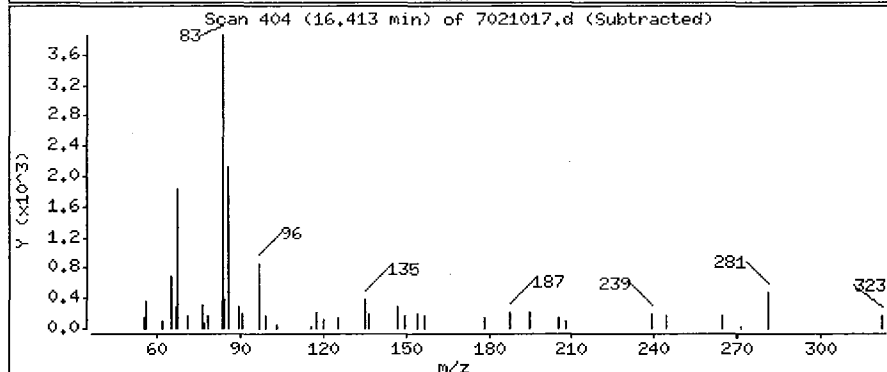
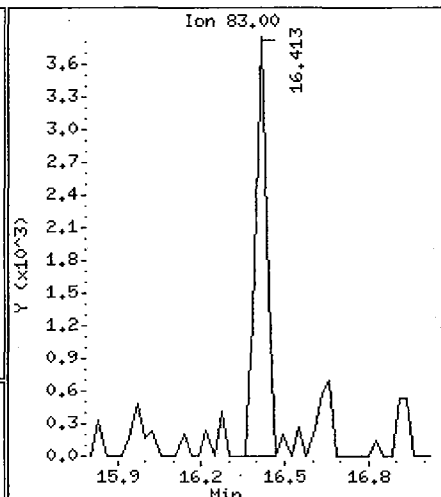
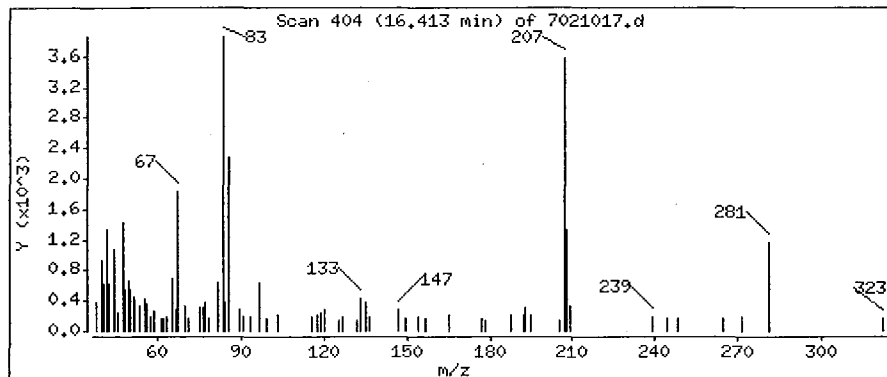
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.09623 PPBV



0066

SCOEPAA00031738

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

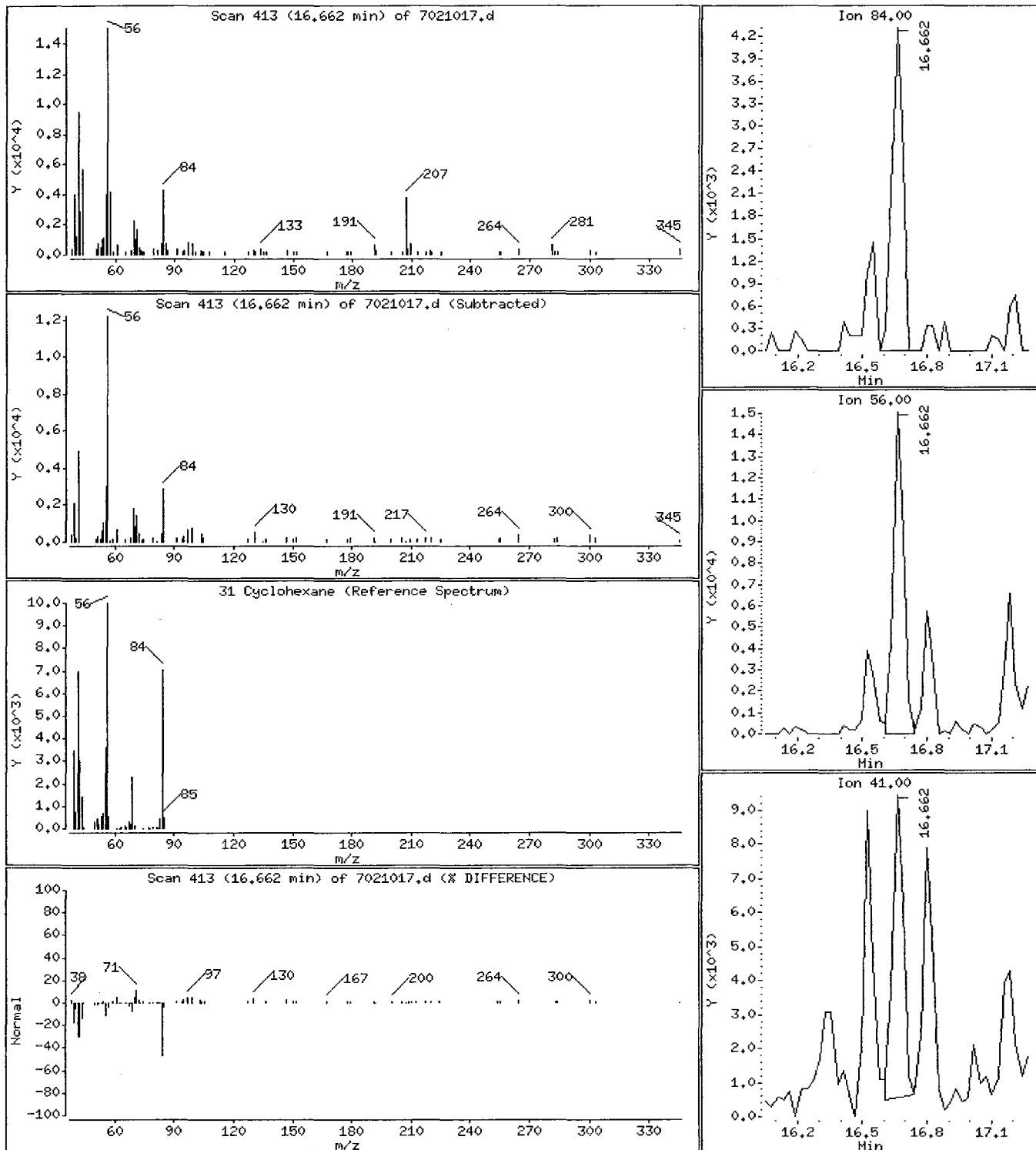
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.2955 PPBV



0067

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

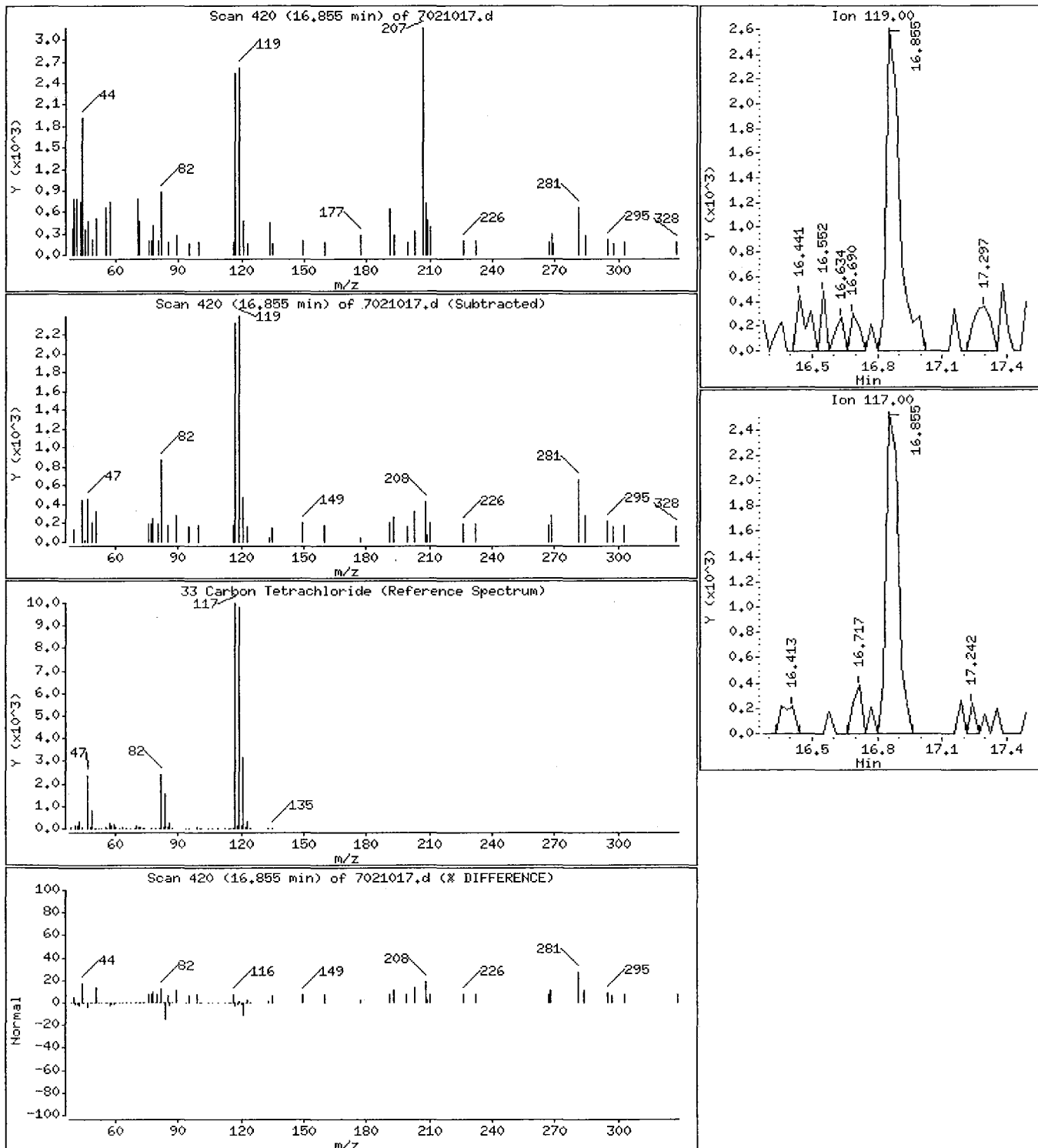
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1279 PPBV



0068

SCOEP00031740

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 17

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

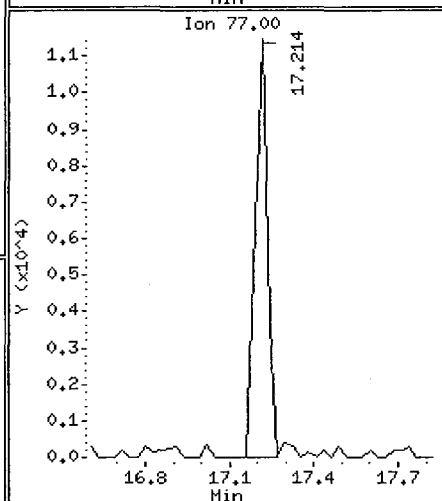
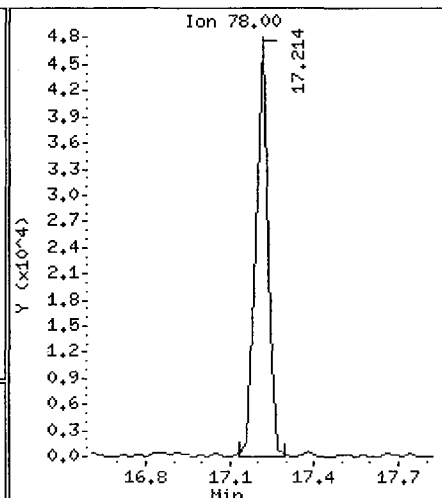
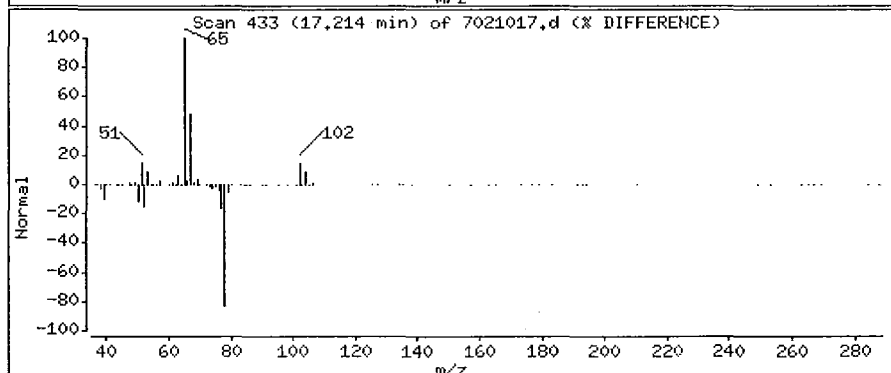
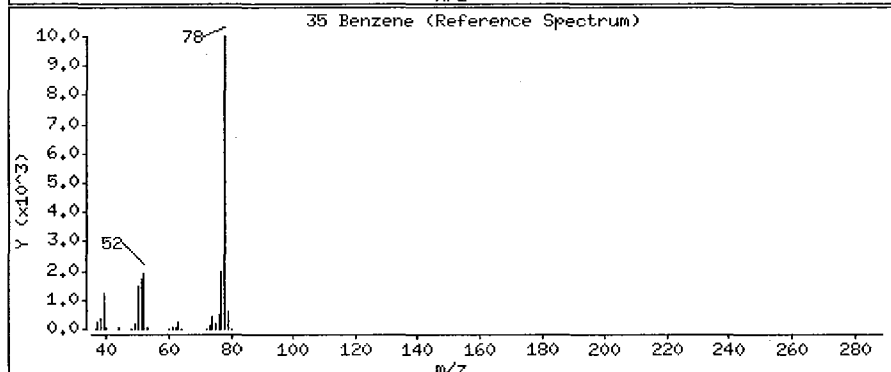
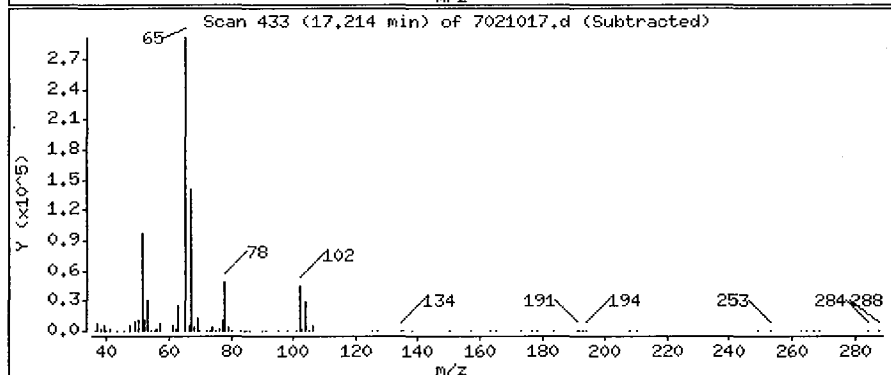
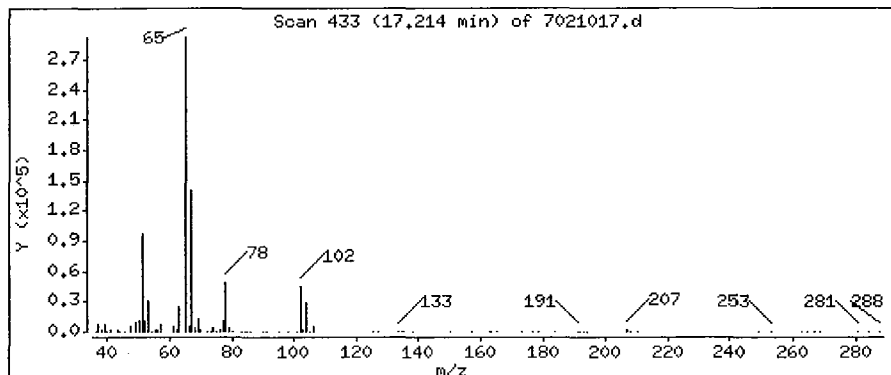
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

35 Benzene

Concentration: 0.9090 PPBV



0069

SCOEP00031741

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

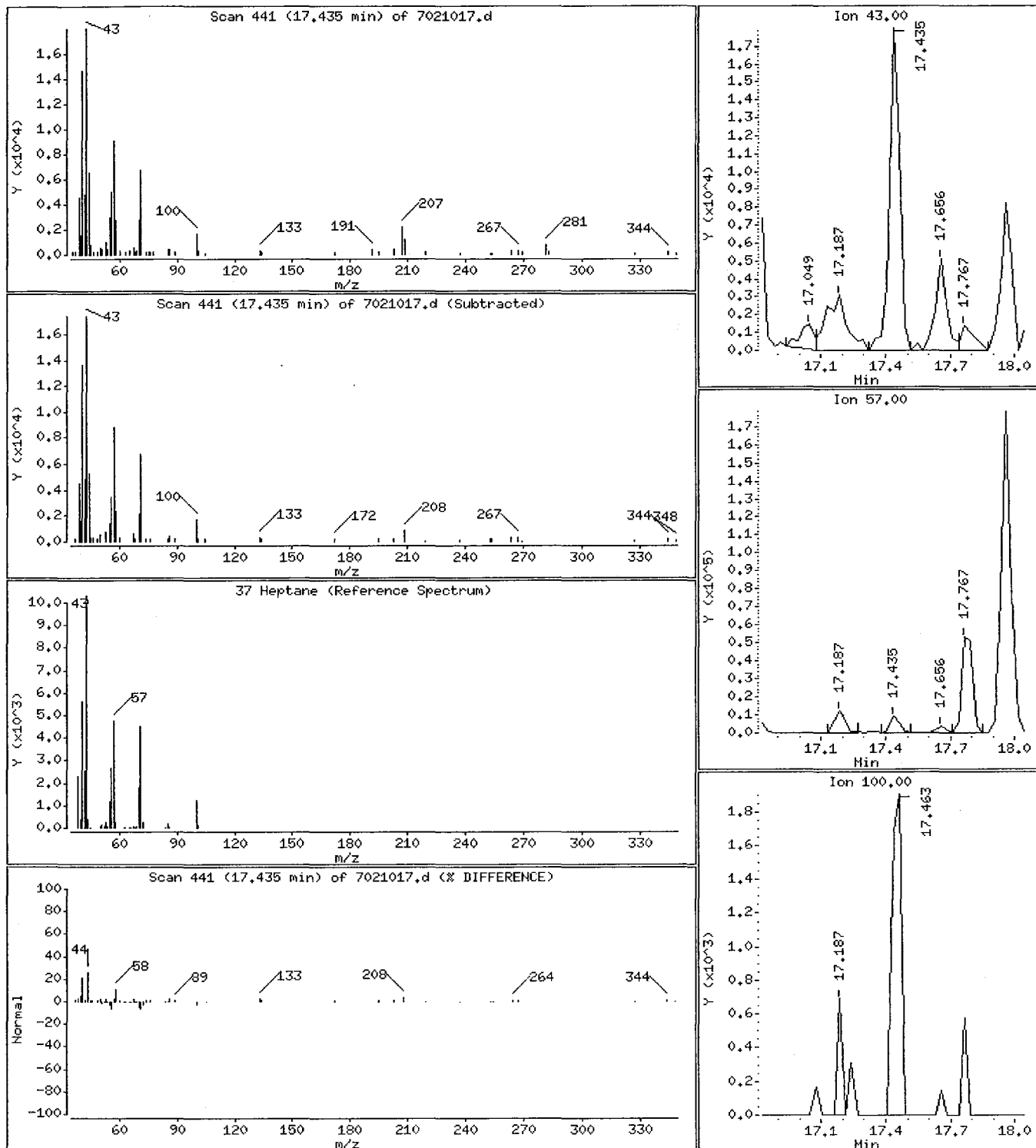
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.6550 PPBV



Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

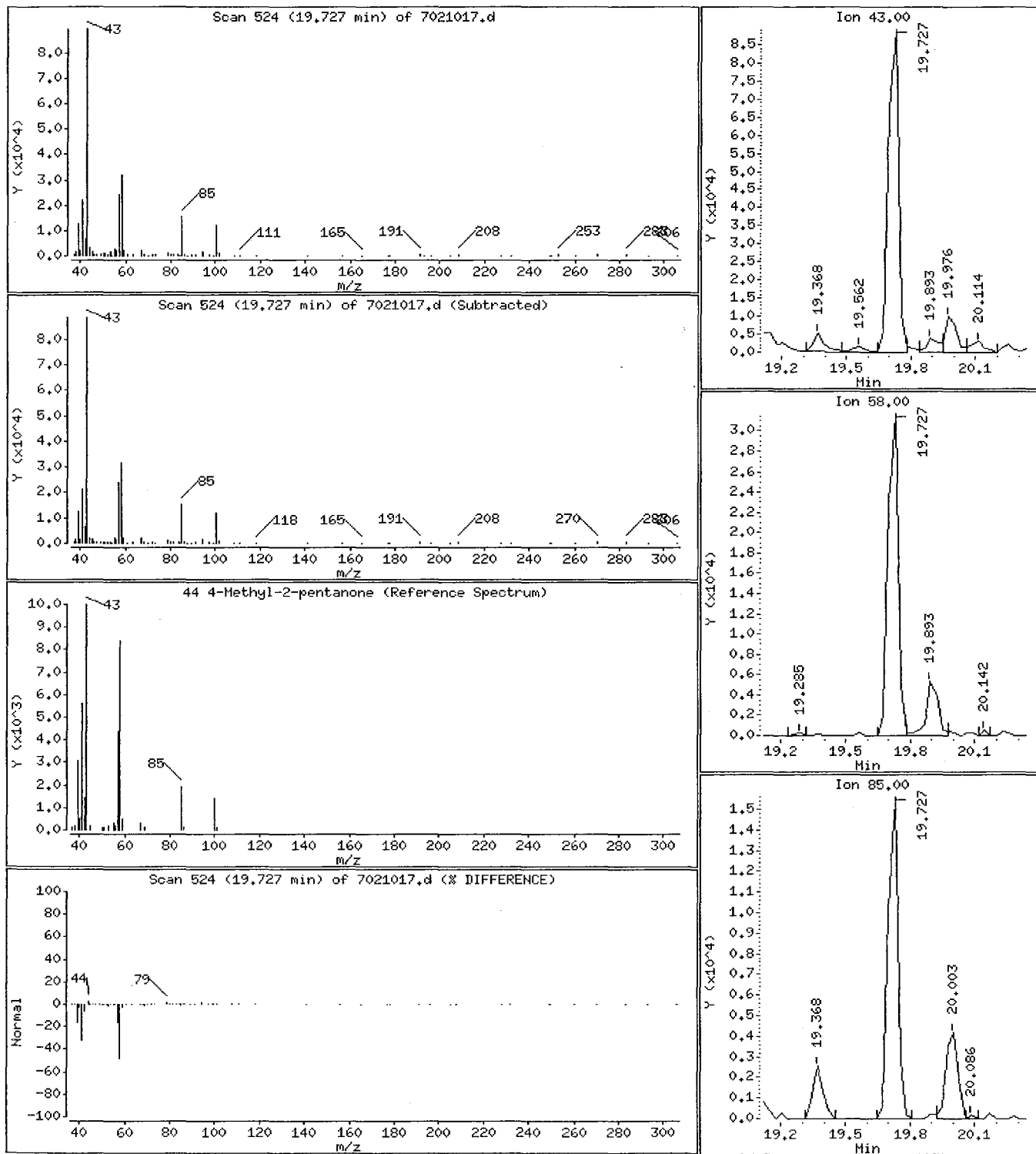
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 2.882 PPBV



0071

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

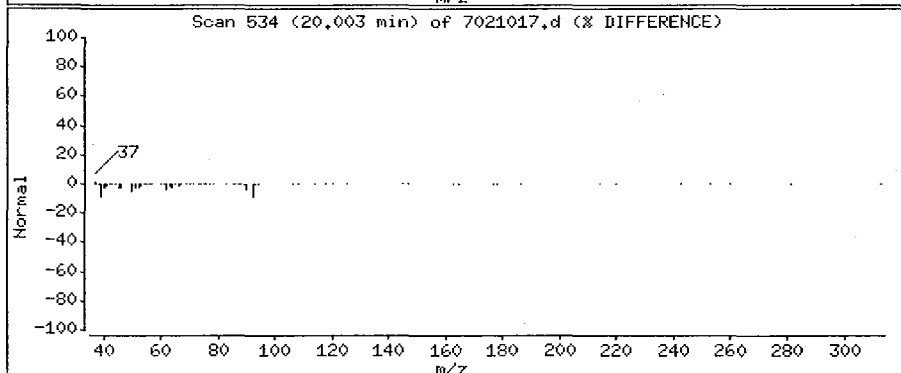
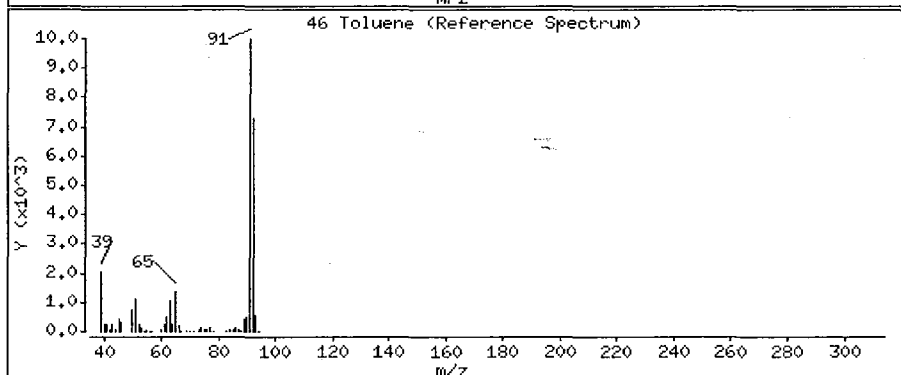
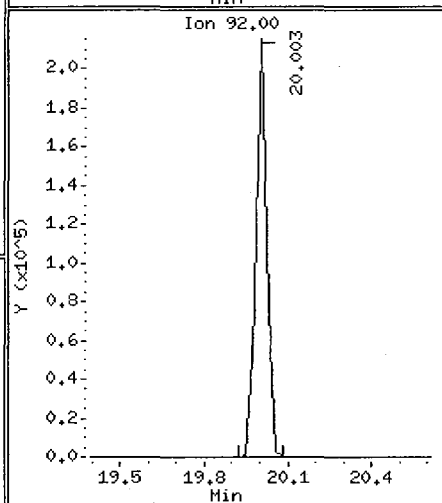
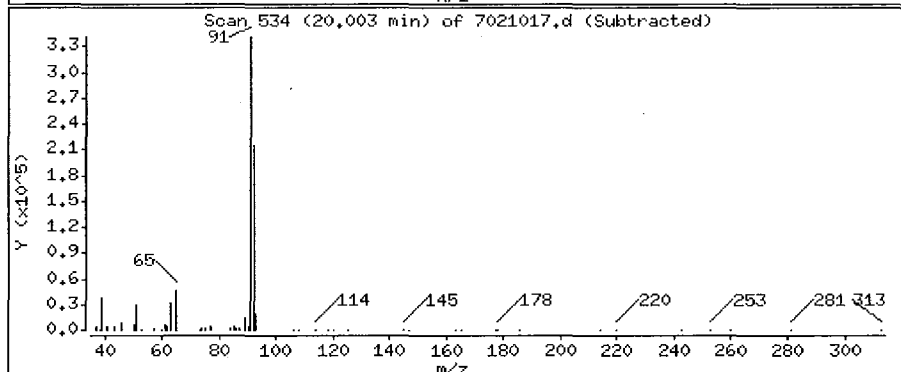
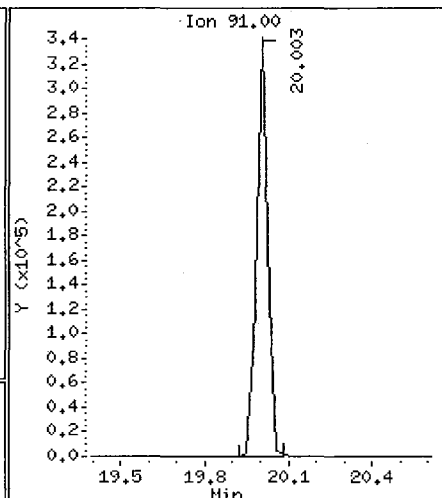
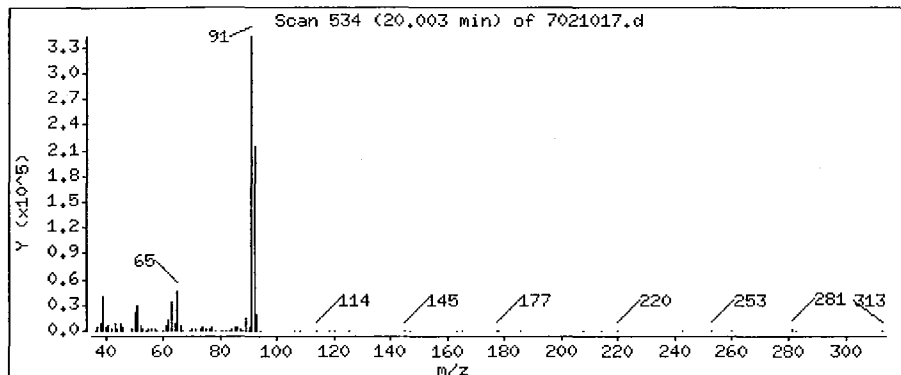
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

46 Toluene

Concentration: 5,240 PPBV



0072

SCOEPAA00031744

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

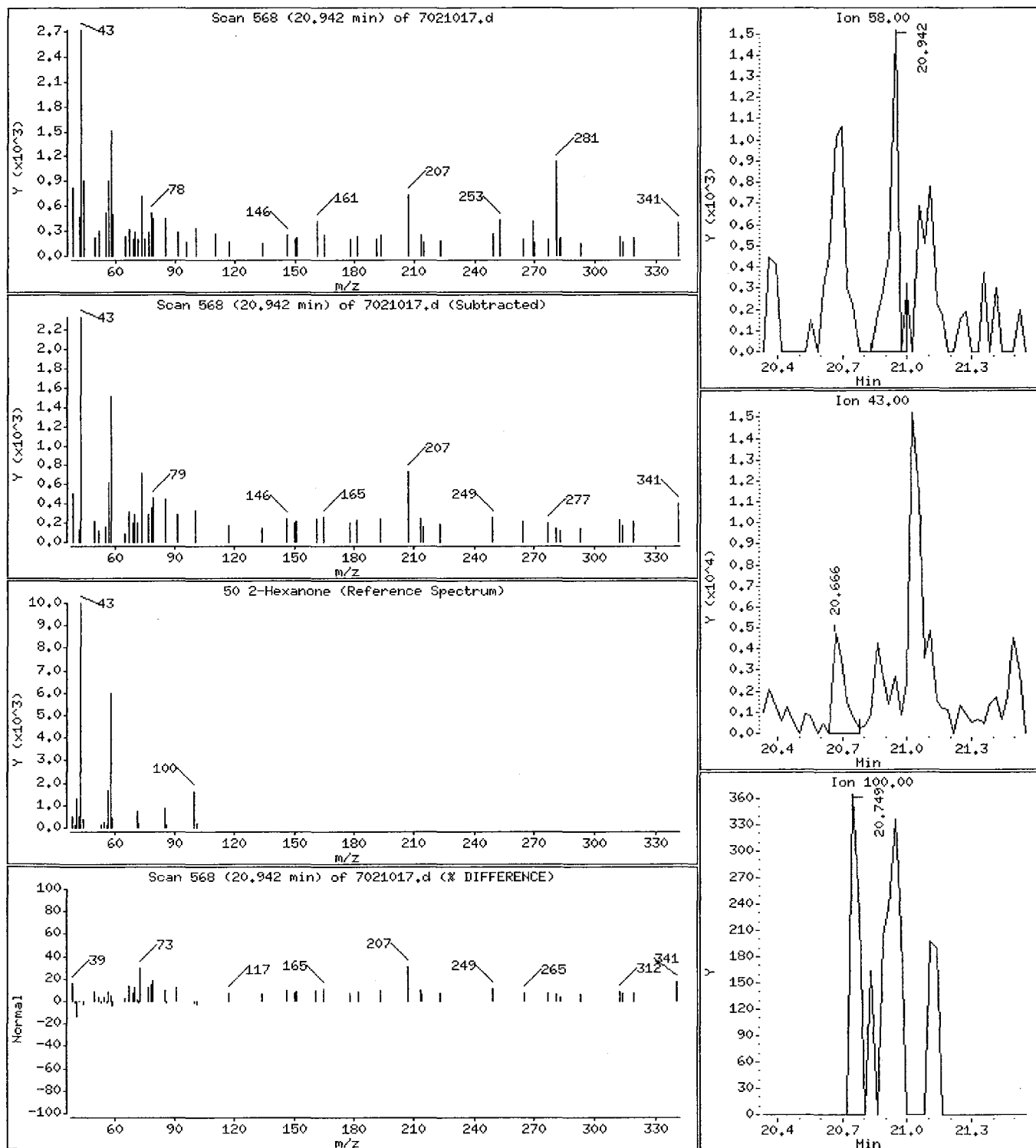
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

50 2-Hexanone

Concentration: 0.08911 PPBV



0073

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 22

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

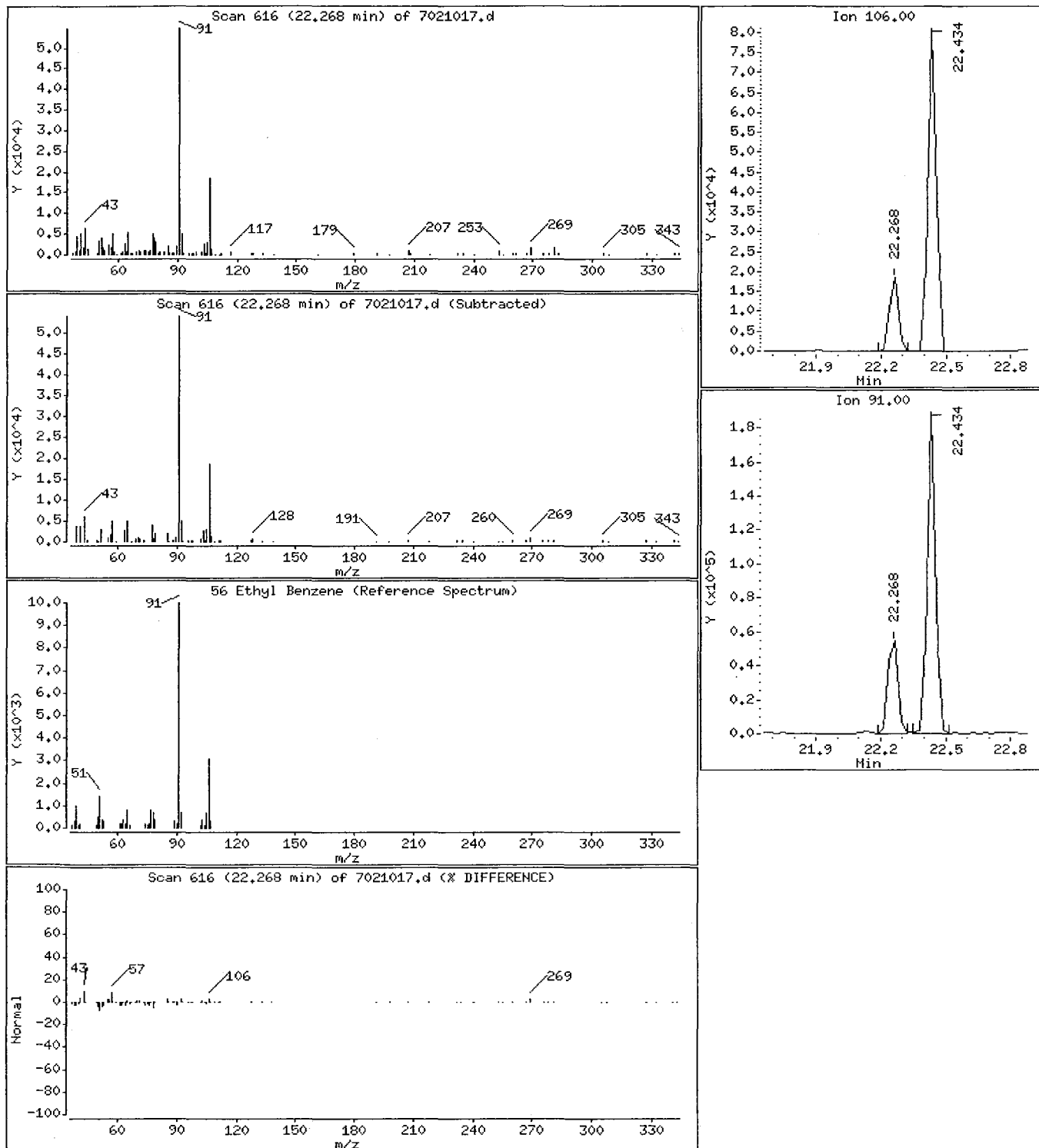
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.8482 PPBV



0074

SCOEP00031746

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 23

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

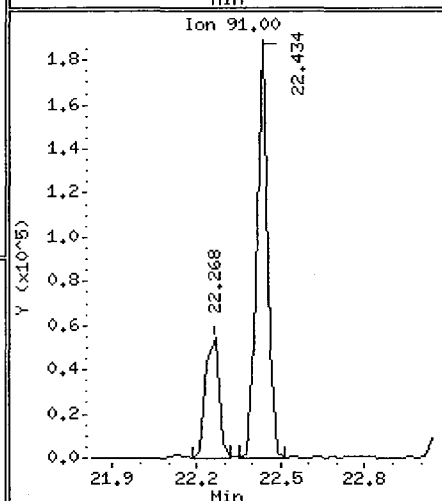
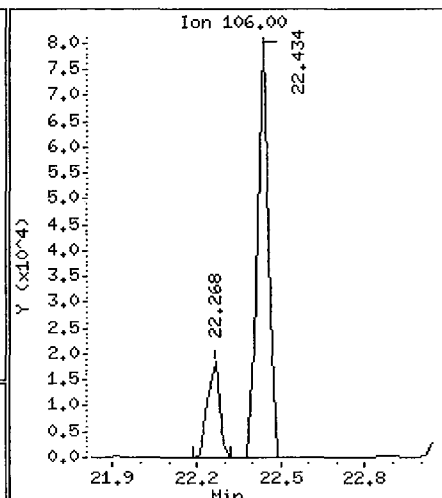
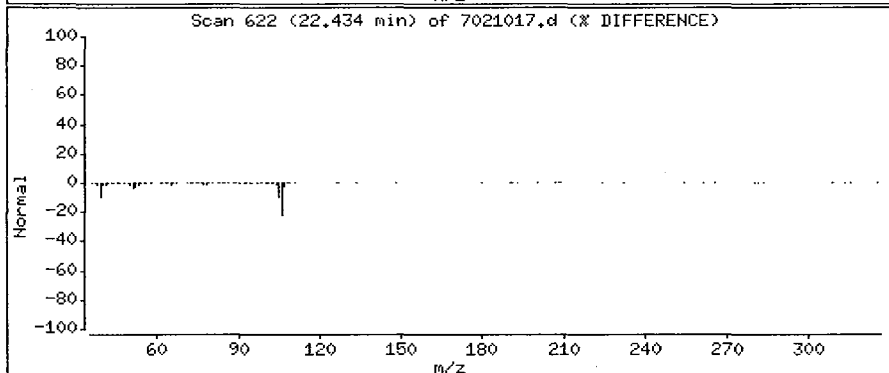
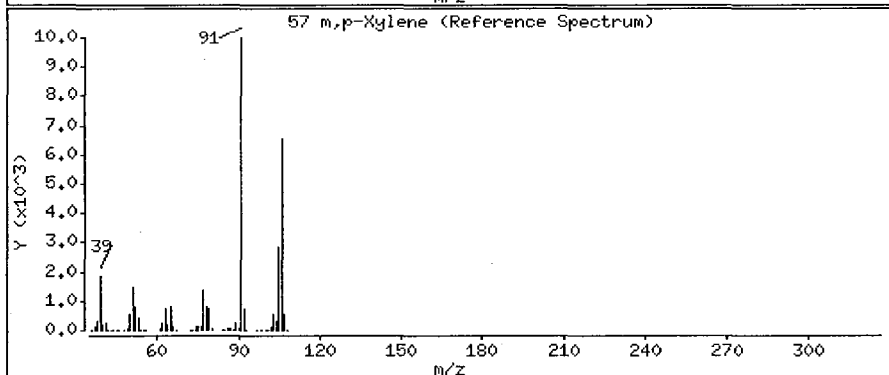
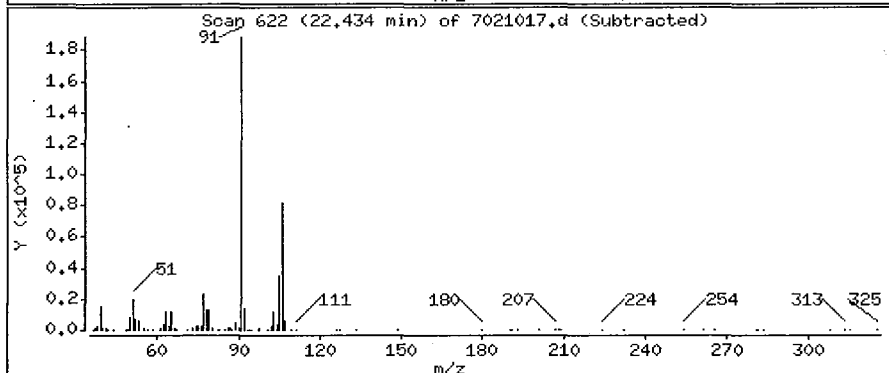
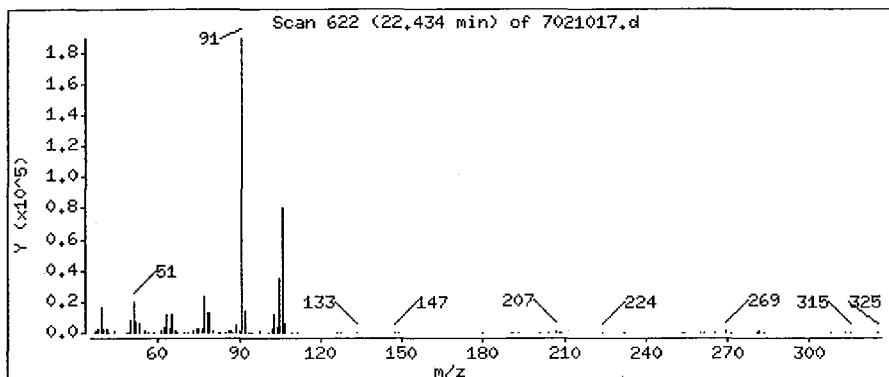
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 2,783 PPBV



0075

SCOEPAA00031747

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 24

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

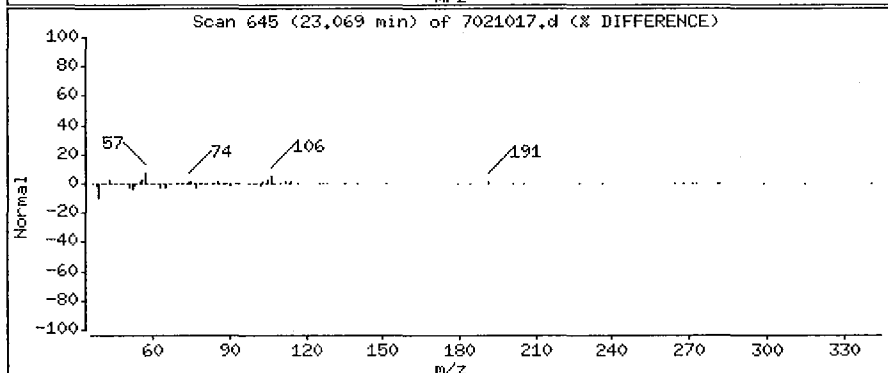
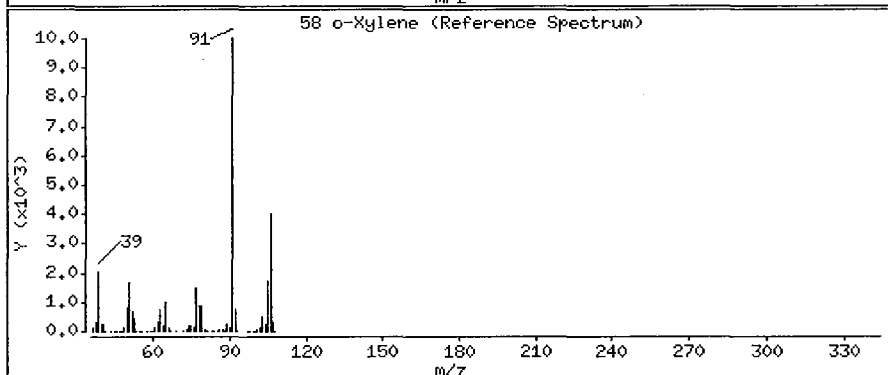
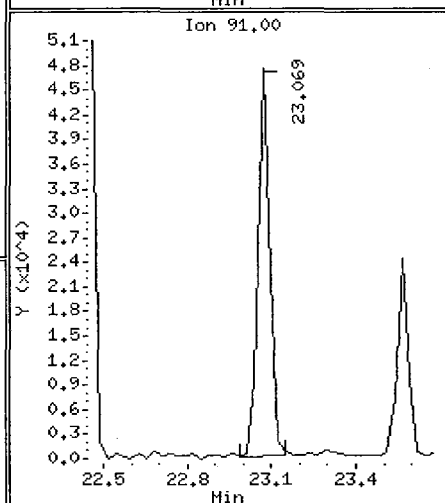
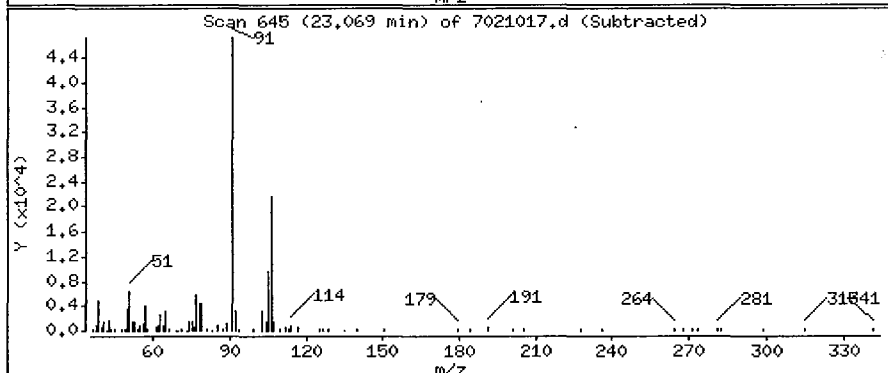
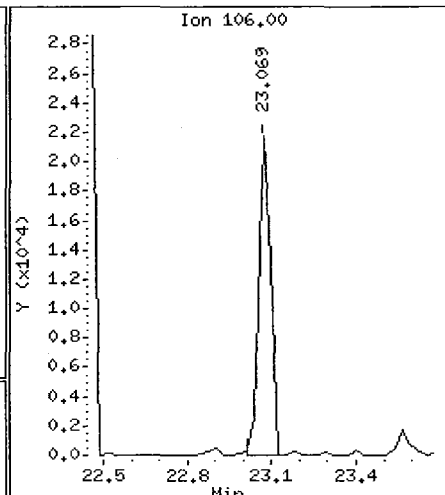
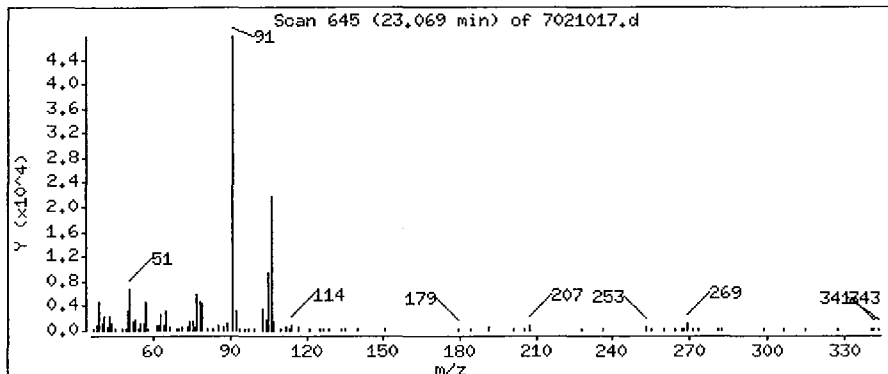
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.9937 PPBV



0076

SCOEPAA00031748

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 25

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

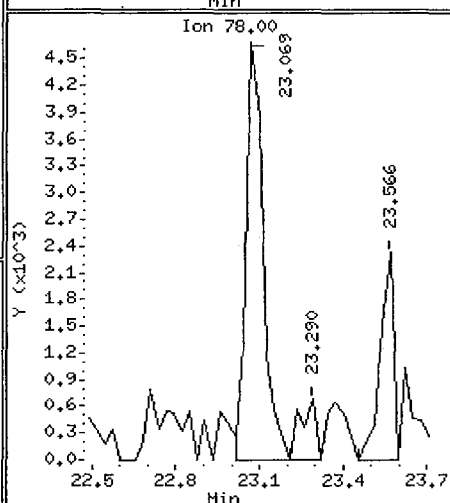
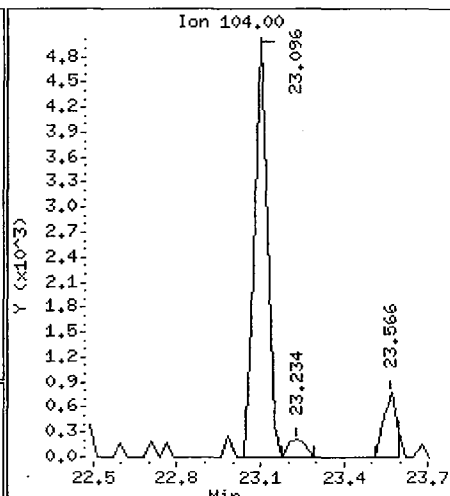
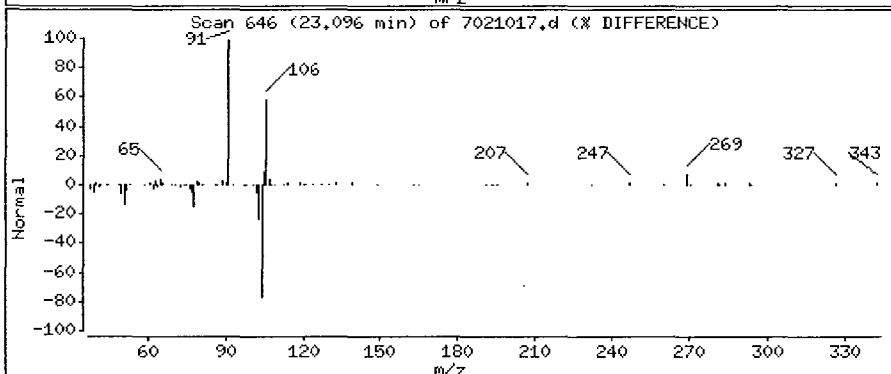
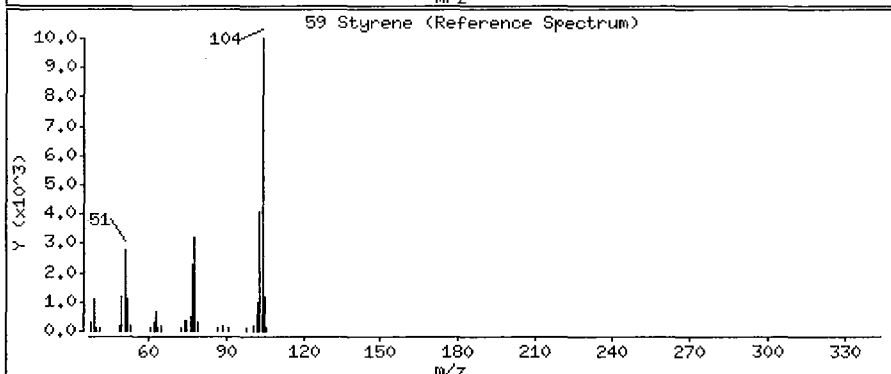
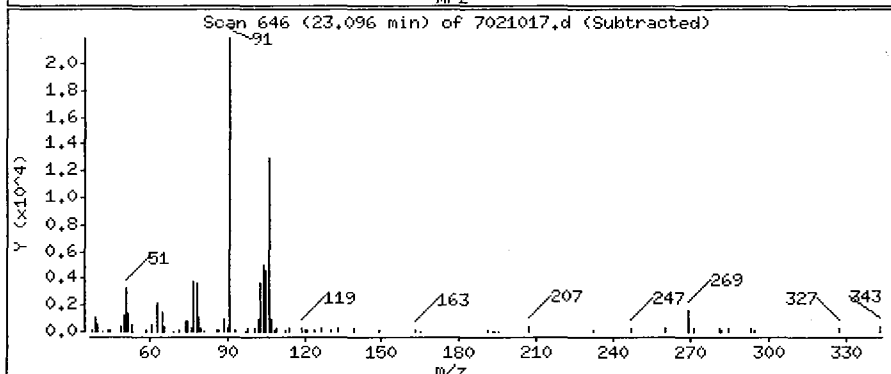
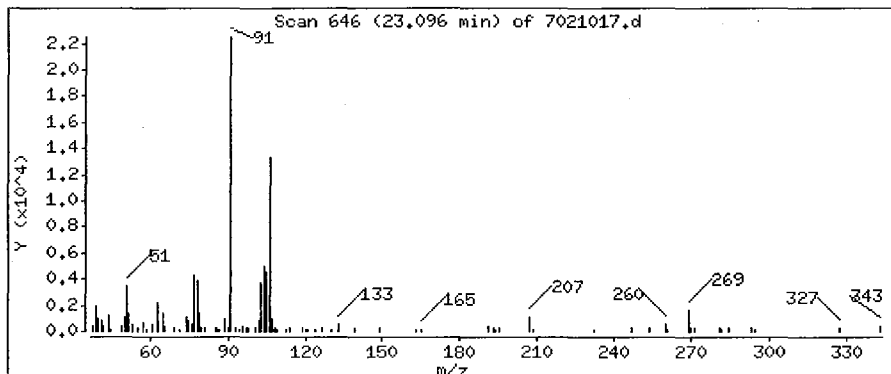
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1655 PPBV



0077

SCOEP00031749

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

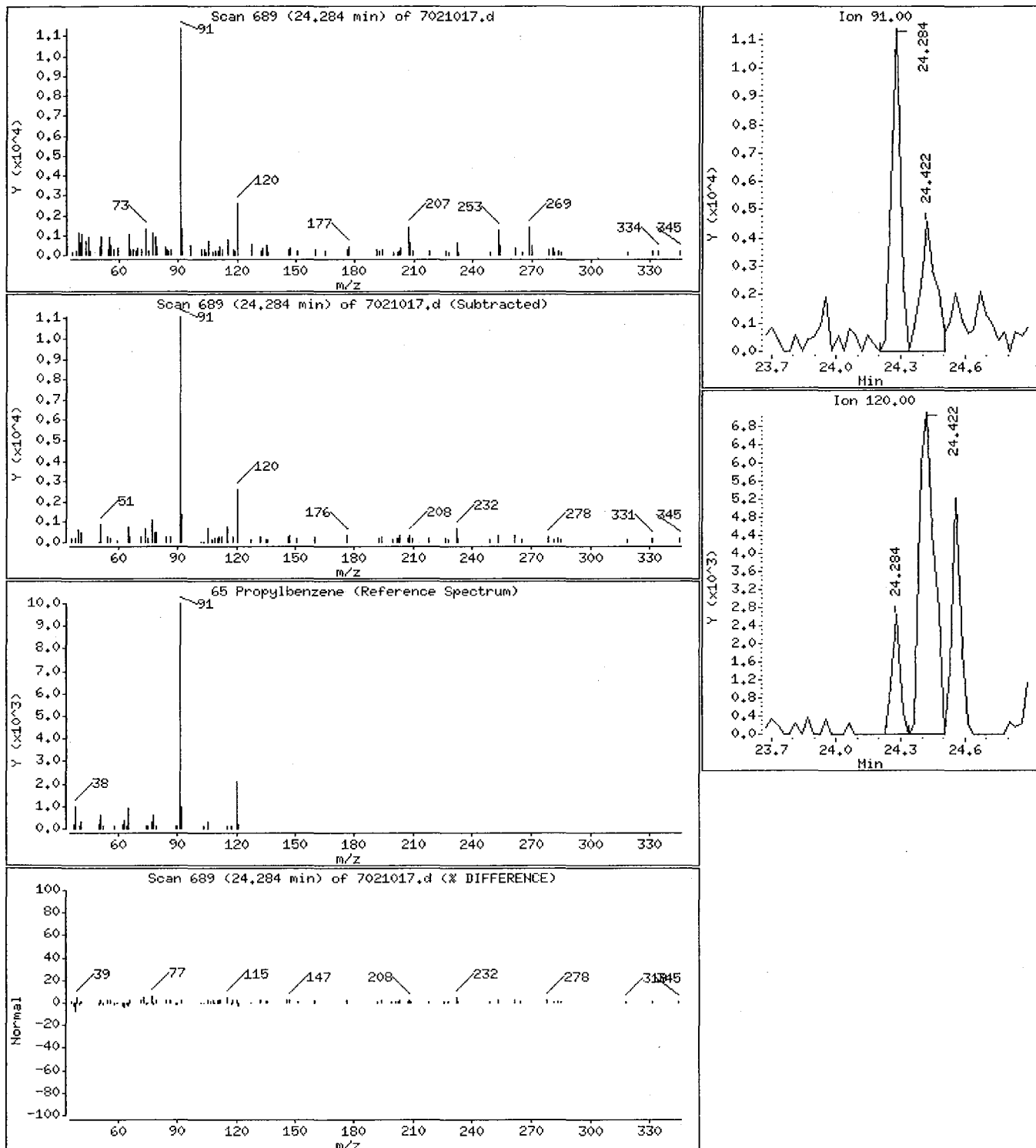
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1554 PPBV



0078

SCOEPA00031750

Data File: /chem/msd7.i/7-10feb.b/7021017.d

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Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

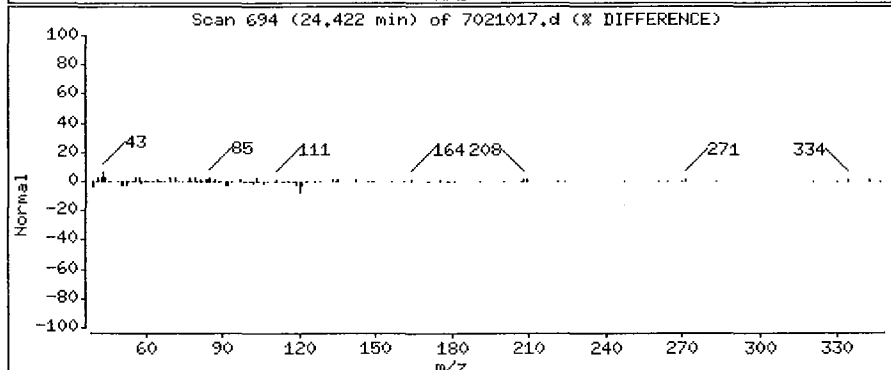
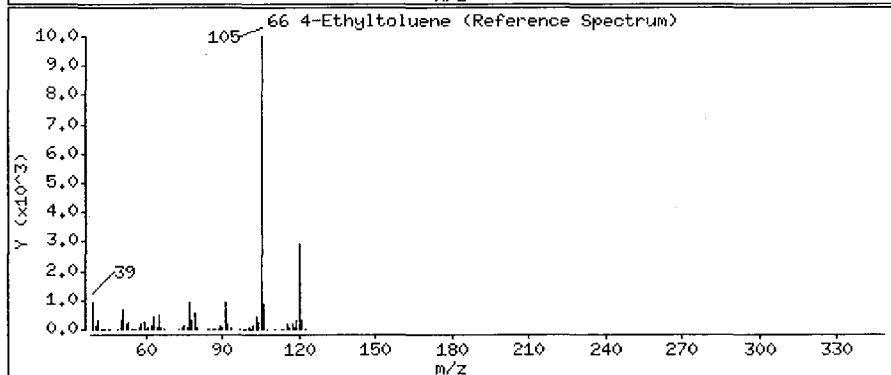
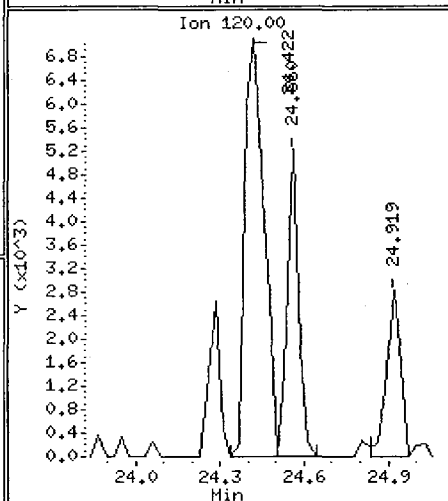
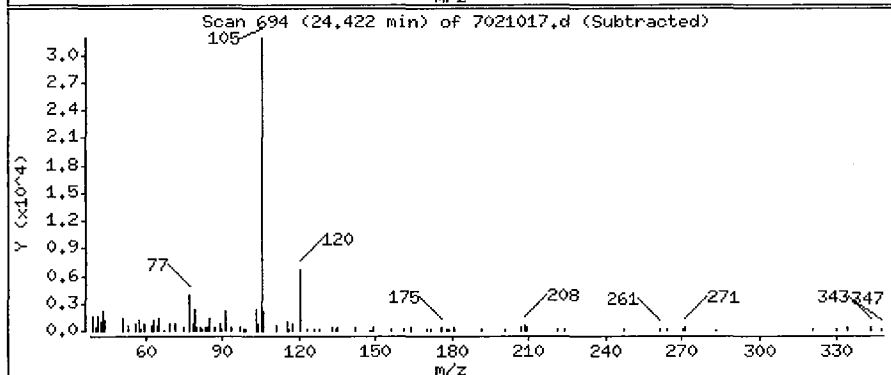
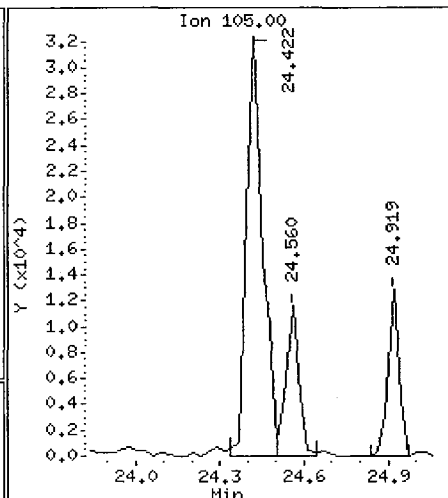
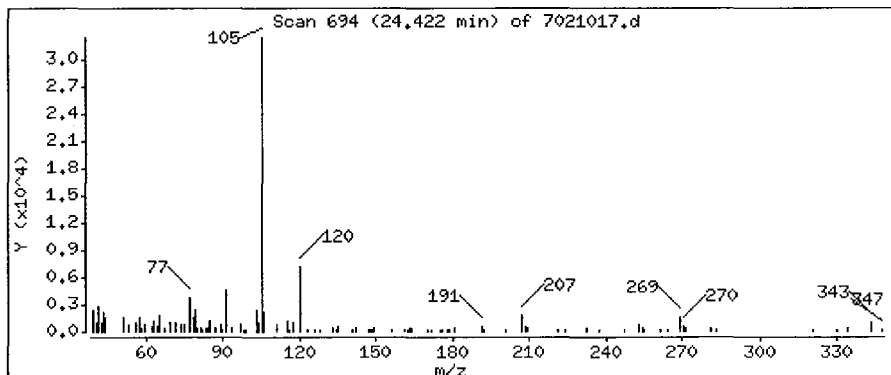
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.7773 PPBV



0079

SCOEP00031751

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

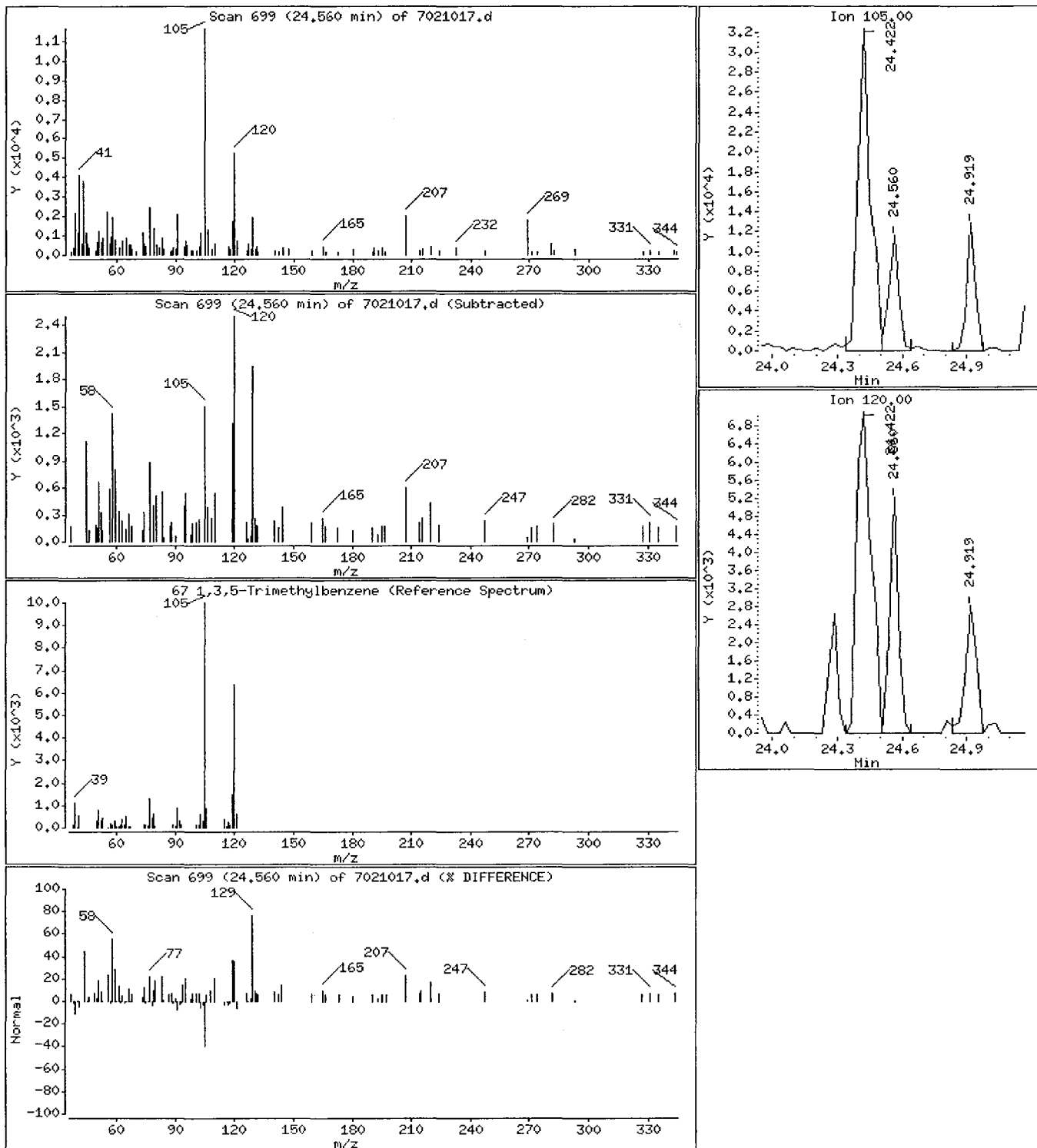
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2496 PPBV



0080

Data File: /chem/msd7.i/7-10feb.b/7021017.d

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Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

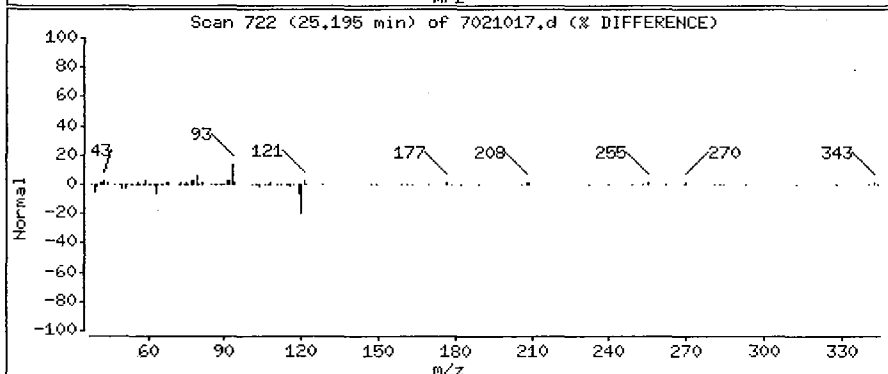
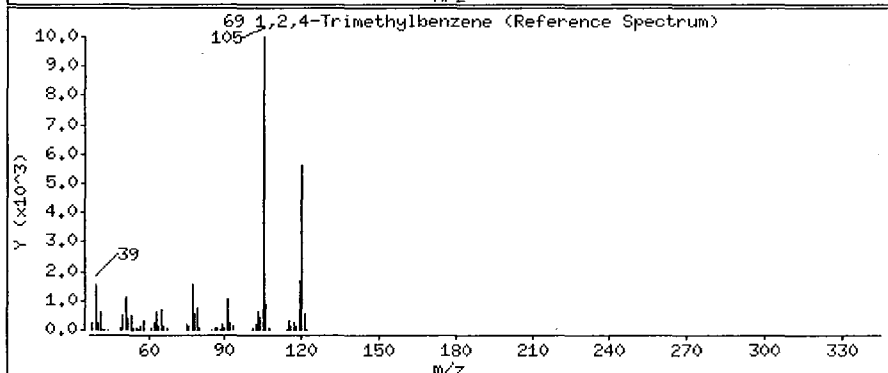
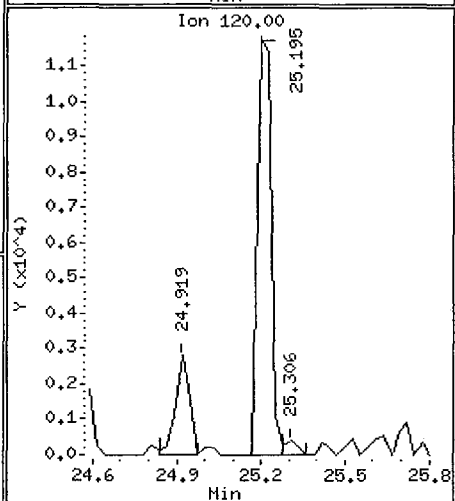
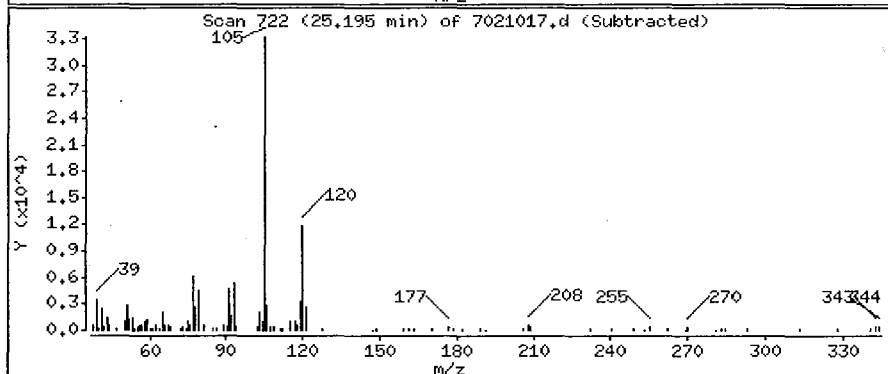
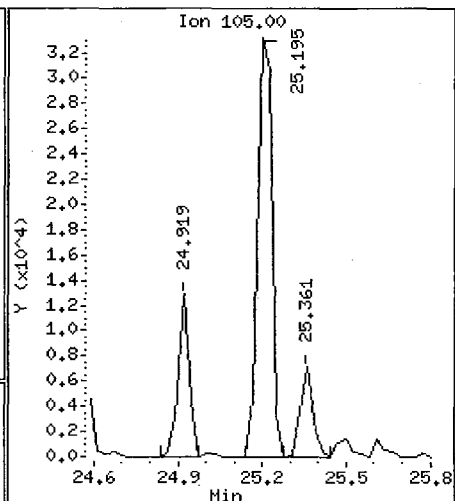
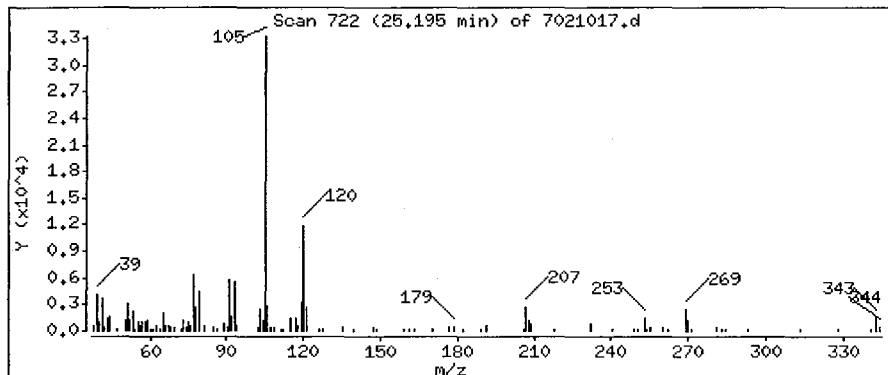
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.8278 PPBV



0081

SCOEPAA00031753

Data File: /chem/msd7.i/7-10feb.b/7021017.d

Page 30

Date : 10-FEB-2005 20:50

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#33999

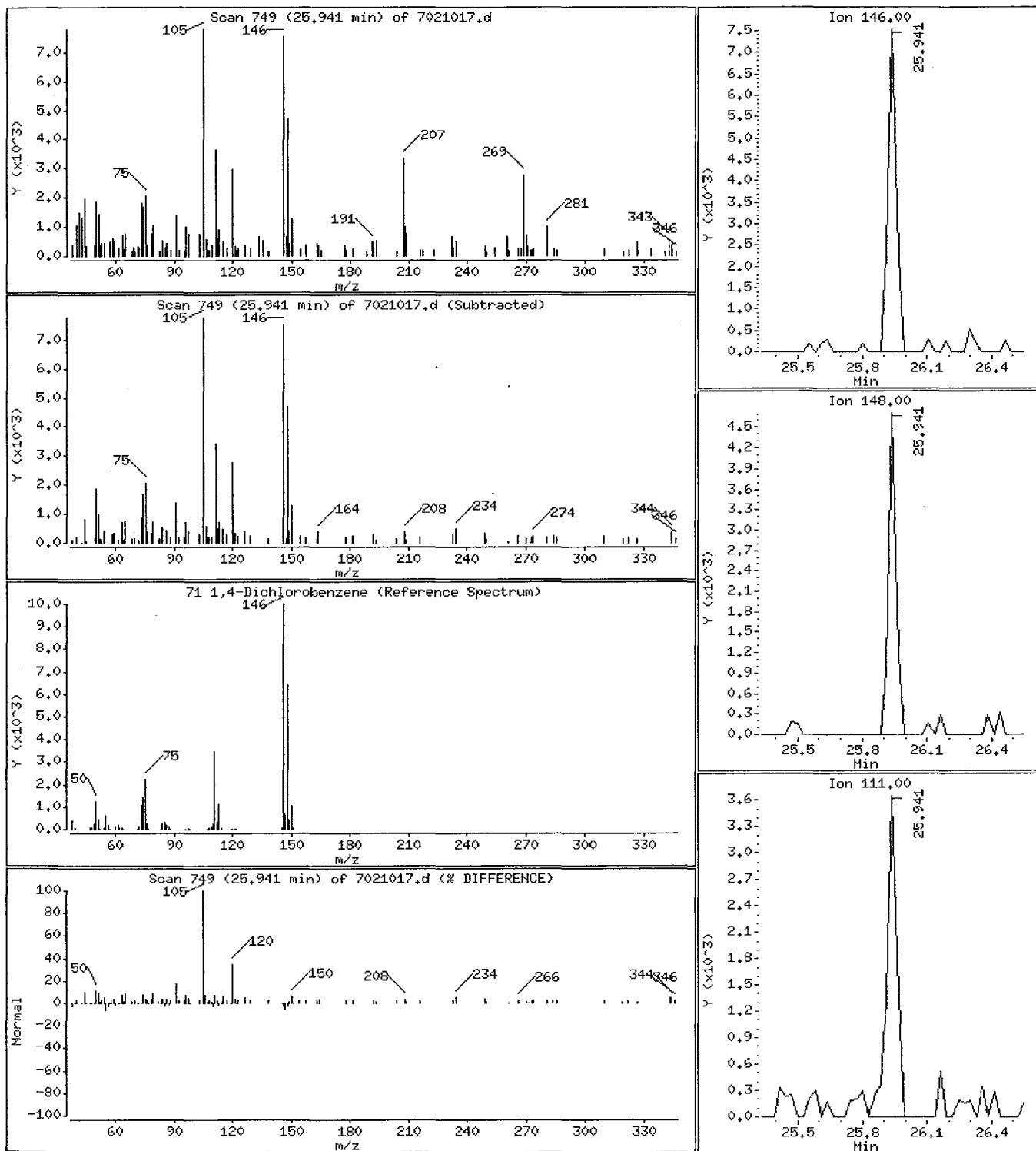
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

71 1,4-Dichlorobenzene

Concentration: 0.1873 PPBV



0082

SCOEP00031754

AIR TOXICS LTD.

SAMPLE NAME: #3, Roof of Fab 1

ID#: 0502032-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021015	Date of Collection:	1/25/05
Dil. Factor:	1.68	Date of Analysis:	2/10/05 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	1.0	0.83	5.2
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.45	0.35	0.93
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
Bromomethane	0.17	Not Detected	0.65	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
Freon 11	0.17	2.0	0.94	12
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Carbon Tetrachloride	0.17	0.13 J	1.0	0.80 J
Benzene	0.17	1.0	0.54	3.3
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
Toluene	0.17	2.4	0.63	9.1
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.97	0.73	4.2
m,p-Xylene	0.17	3.1	0.73	13
o-Xylene	0.17	1.0	0.73	4.6
Styrene	0.17	0.12 J	0.72	0.53 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.24	0.82	1.2
1,2,4-Trimethylbenzene	0.17	0.84	0.82	4.1
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.96	1.2	3.4
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
1,3-Butadiene	0.84	Not Detected	1.8	Not Detected
Acetone	0.84	14	2.0	33
Carbon Disulfide	0.84	0.72 J	2.6	2.2 J

AIR TOXICS LTD.

SAMPLE NAME: #3, Roof of Fab 1

ID#: 0502032-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021015	Date of Collection:	1/25/05
Dil. Factor:	1.68	Date of Analysis:	2/10/05 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.84	3.7	2.1	9.0
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	2.6	2.5	7.6
Hexane	0.84	0.72 J	3.0	2.5 J
Tetrahydrofuran	0.84	0.17 J	2.5	0.51 J
Cyclohexane	0.84	0.32 J	2.9	1.1 J
1,4-Dioxane	0.84	Not Detected	3.0	Not Detected
Bromodichloromethane	0.84	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	0.84	4.0	3.4	16
2-Hexanone	0.84	Not Detected	3.4	Not Detected
Dibromochloromethane	0.84	Not Detected	7.2	Not Detected
Bromoform	0.84	Not Detected	8.7	Not Detected
4-Ethyltoluene	0.84	0.85	4.1	4.2
Ethanol	0.84	5.5	1.6	10
Methyl tert-butyl ether	0.84	Not Detected	3.0	Not Detected
Heptane	0.84	0.47 J	3.4	1.9 J
Cumene	0.84	0.077 J	4.1	0.38 J
Propylbenzene	0.84	0.18 J	4.1	0.87 J
Naphthalene	0.84	Not Detected	4.4	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021015.d
Lab Smp Id: 0502032-03A
Inj Date : 10-FEB-2005 19:29
Operator : nk
Smp Info : 500ml can#34415
Misc Info : 6.0"Hg-5psi
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 19:17 nkhan
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
----	-----	-----	----	-----	-----	-----	-----	-----	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	432990	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	323160			26.96- 126.96	74.63	
16.331	16.331	(1.000)	49	767678			126.50- 226.50	177.30	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	1962912	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	342380			0.00- 67.73	17.44	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1382188	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	845192			9.26- 109.26	61.15	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.215	17.214	(1.054)	65	957769	10.7399	10.740	80.00- 120.00	100.00	
17.215	17.214	(1.054)	67	428980			0.17- 100.17	44.79	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1671939	9.98384	9.984	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	205335			0.00- 61.87	12.28	

0085

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1200138			21.49- 121.49	71.78	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	756054	10.5887	10.589	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1201522			102.12- 202.12	158.92	
23.953	23.953	(1.082)	176	745202			47.05- 147.05	98.56	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	218638	0.62295	1.046	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	72246			0.00- 82.65	33.04	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	27132	0.26815	0.4505	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	7885			0.00- 84.65	29.06	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	373588	1.22413	2.056	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	250965			14.29- 114.29	67.18	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	141232	3.29709	5.539	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	33403			0.00- 76.71	23.65	
12.050	12.050	(0.738)	46	50294			0.00- 90.17	35.61	

16 Acetone						CAS #: 67-64-1			
12.824	12.824	(0.785)	43	1903487	8.34285	14.016	80.00- 120.00	100.00	
12.824	12.824	(0.785)	58	525038			0.00- 78.78	27.58	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	472257	2.18988	3.679	80.00- 120.00	100.00	
13.238	13.238	(0.811)	43	99205			0.00- 69.75	21.01	
13.238	13.238	(0.811)	59	15419			0.00- 53.72	3.26	

17 Carbon Disulfide						CAS #: 75-15-0			
12.907	12.906	(0.790)	76	122197	0.43122	0.7244	80.00- 120.00	100.00 (a)	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	51832	0.57406	0.9644	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	57239			96.36- 196.36	110.43	
13.735	13.735	(0.841)	51	22990			0.00- 93.42	44.35	

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	73600	0.43018	0.7227	80.00- 120.00	100.00 (a)	
14.591	14.563	(0.893)	43	101967			15.23- 115.23	138.54	
14.563	14.563	(0.892)	86	10860			0.00- 65.23	14.76	

0086

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE (	PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
28 2-Butanone			CAS #: 78-93-3					
15.972	15.972	(0.978)	72	72340	1.53003	2.570	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	385563			1029.22-1129.22	532.99
15.972	15.972	(0.978)	57	29867			0.00- 89.21	41.29
23 Tetrahydrofuran			CAS #: 109-99-9					
16.331	16.331	(1.000)	42	13505	0.10293	0.1729	80.00- 120.00	100.00(a)
16.303	16.331	(0.998)	71	5073			0.00- 84.14	37.56
16.331	16.331	(1.000)	72	4087			0.00- 86.54	30.26
31 Cyclohexane			CAS #: 110-82-7					
16.662	16.662	(1.020)	84	18228	0.19268	0.3237	80.00- 120.00	100.00(a)
16.662	16.662	(1.020)	56	60356			93.37- 193.37	331.12
16.662	16.662	(1.020)	41	46013			30.80- 130.80	252.43
33 Carbon Tetrachloride			CAS #: 56-23-5					
16.883	16.883	(1.034)	119	11806	0.07593	0.1276	80.00- 120.00	100.00(a)
16.883	16.883	(1.034)	117	11178			61.49- 161.49	94.68
35 Benzene			CAS #: 71-43-2					
17.215	17.214	(0.967)	78	174906	0.61398	1.031	80.00- 120.00	100.00
17.215	17.214	(0.967)	77	44275			0.00- 72.07	25.31
37 Heptane			CAS #: 142-82-5					
17.435	17.435	(0.980)	43	46600	0.28016	0.4707	80.00- 120.00	100.00(a)
17.435	17.435	(0.980)	57	23290			1.42- 101.42	49.98
17.435	17.435	(0.980)	100	6629			0.00- 66.93	14.23
44 4-Methyl-2-pentanone			CAS #: 108-10-1					
19.727	19.727	(1.109)	43	438779	2.38457	4.006	80.00- 120.00	100.00
19.727	19.727	(1.109)	58	161652			0.00- 87.49	36.84
19.727	19.727	(1.109)	85	76038			0.00- 66.91	17.33
46 Toluene			CAS #: 108-88-3					
20.004	20.004	(1.124)	91	471075	1.44339	2.425	80.00- 120.00	100.00
20.004	20.004	(1.124)	92	304560			12.22- 112.22	64.65
56 Ethyl Benzene			CAS #: 100-41-4					
22.268	22.268	(1.006)	106	65608	0.57813	0.9712	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	205287			294.68- 394.68	312.90
57 m,p-Xylene			CAS #: 108-38-3					
22.434	22.434	(1.014)	106	255024	1.83740	3.087	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	581866			168.06- 268.06	228.16
58 o-Xylene			CAS #: 95-47-6					
23.069	23.069	(1.042)	106	71098	0.62900	1.057	80.00- 120.00	100.00

0087

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO	
				RESPONSE	(PPBV)	(PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
58 o-Xylene (continued)									
23.069	23.069	(1.042)	91	173614			189.62~ 289.62	244.19	

59 Styrene						CAS #: 100-42-5			
23.097	23.096	(1.044)	104	12916	0.07382	0.1240	80.00~ 120.00	100.00(a)	
23.069	23.096	(1.042)	78	16746			7.14~ 107.14	129.65	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	12623	0.04600	0.07728	80.00~ 120.00	100.00(aM)	
23.621	23.621	(1.067)	120	2690			0.00~ 72.05	21.31	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	39796	0.10539	0.1770	80.00~ 120.00	100.00(a)	
24.284	24.284	(1.097)	120	6071			0.00~ 69.13	15.26	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	152428	0.50612	0.8503	80.00~ 120.00	100.00	
24.422	24.450	(1.104)	120	39959			0.00~ 75.29	26.21	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	37743	0.14126	0.2373	80.00~ 120.00	100.00	
24.560	24.560	(1.110)	120	16192			0.00~ 89.72	42.90	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	128339	0.50208	0.8435	80.00~ 120.00	100.00	
25.195	25.195	(1.139)	120	39919			0.00~ 87.12	31.10	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
 M - Compound response manually integrated.

0088

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7021015.d
Lab Smp Id: 0502032-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk

Calibration Date: 10-FEB-2005
Calibration Time: 00:57

Level: LOW
Sample Type: AIR

Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 6.0"Hg-5psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	432990	-6.88
38 1,4-Difluorobenze	2172345	1303407	3041283	1962912	-9.64
54 Chlorobenzene-d5	1516792	910075	2123509	1382188	-8.87

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-10feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-03A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 6.0"Hg-5psi

SURROGATE COMPOUND	CONC	CONC	%	LIMITS
	ADDED	RECOVERED	RECOVERED	
	PPBV	PPBV		
\$ 34 1,2-Dichloroethane	10.000	10.740	107.40	70-130
\$ 45 Toluene-d8	10.000	9.984	99.84	70-130
\$ 63 Bromofluorobenzene	10.000	10.589	105.89	70-130

0090

SCOEPAA00031762

Date : 10-FEB-2005 19:29

Client ID:

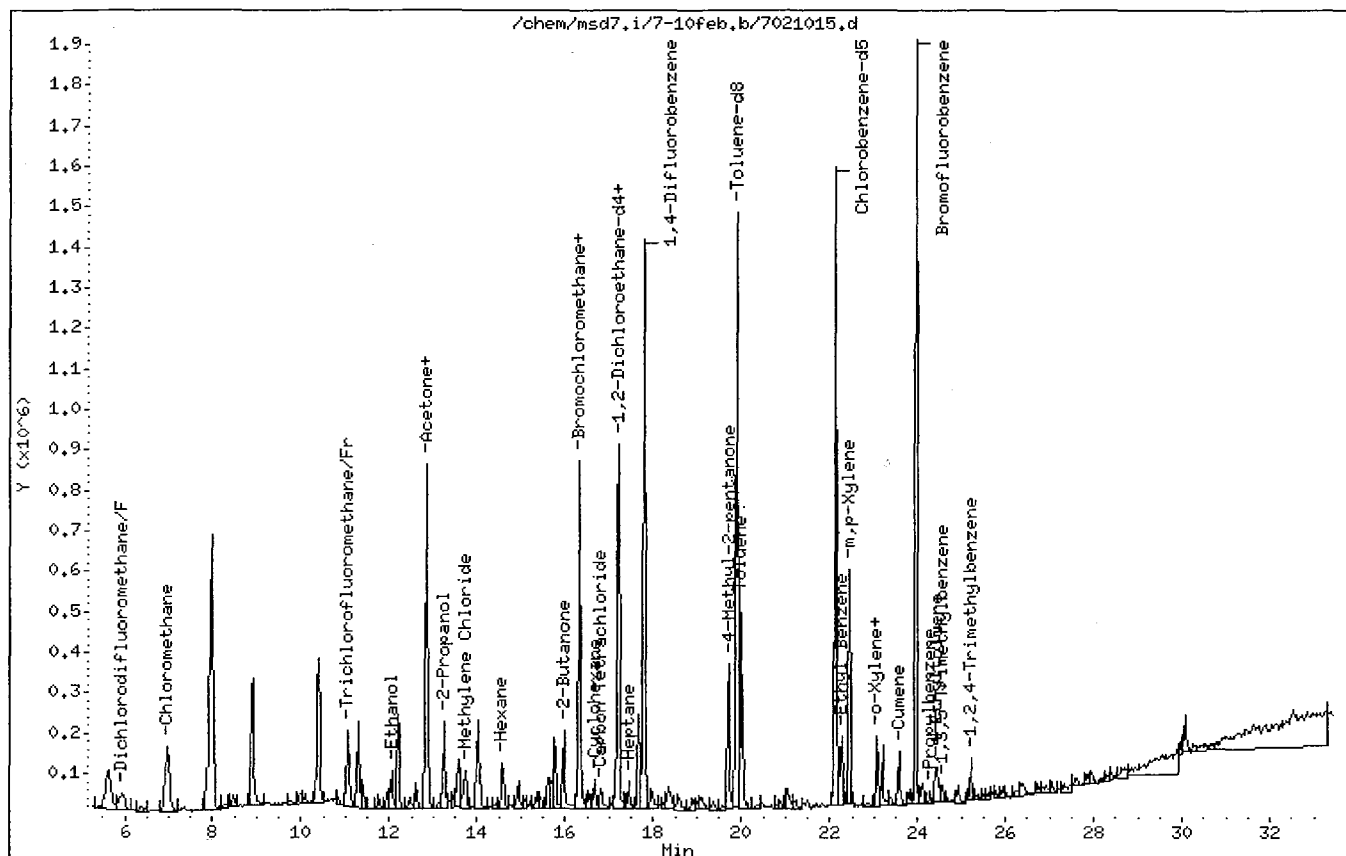
Instrument: msd7.i

Sample Info: 500ml can#34415

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0091

SCOEPAA00031763

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

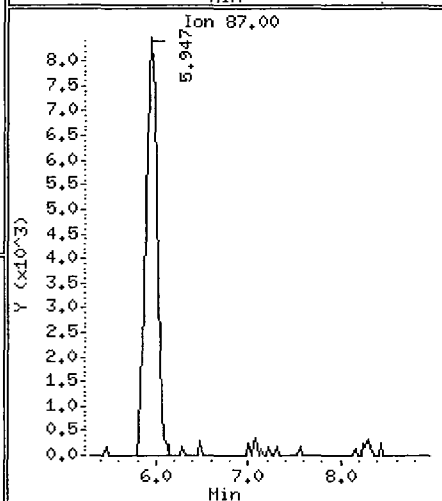
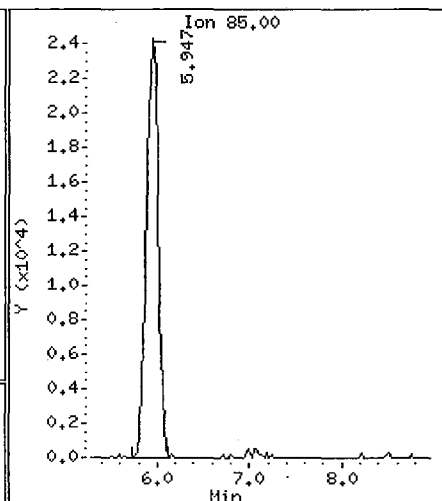
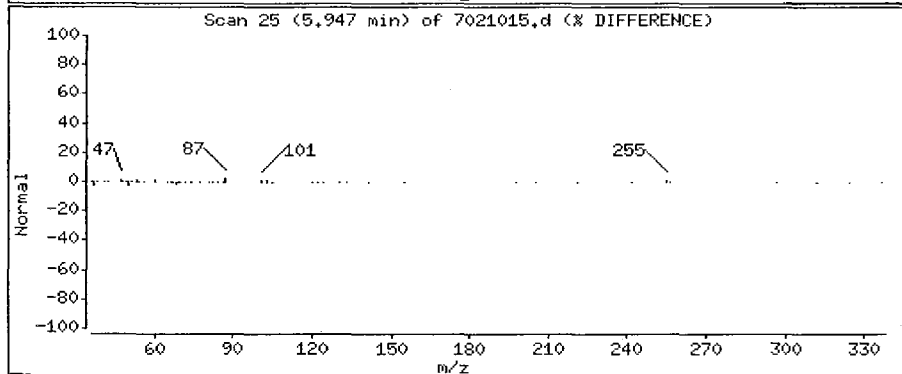
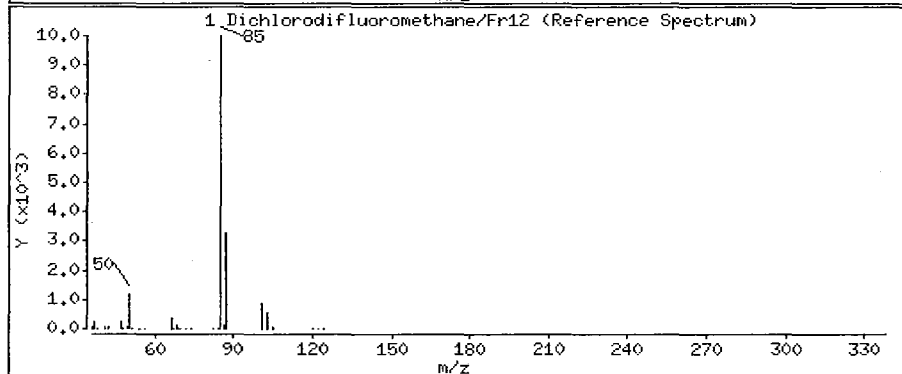
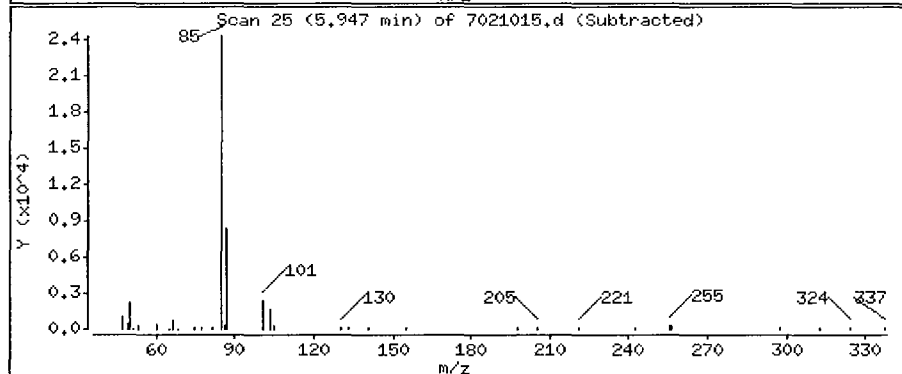
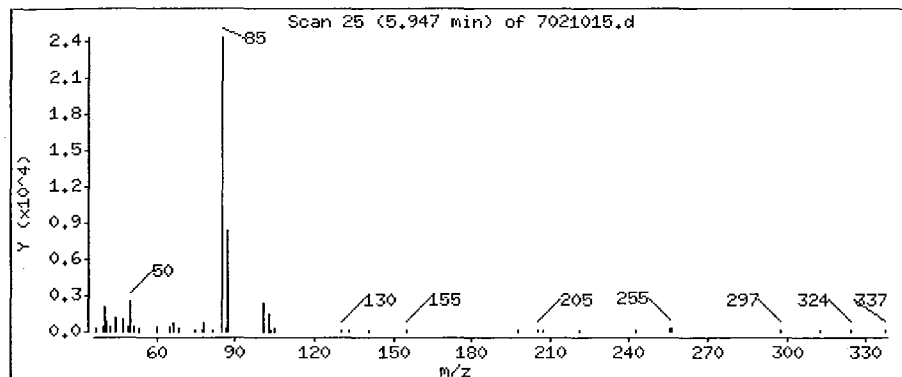
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.046 PPBW



0092

SCOEPAA00031764

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

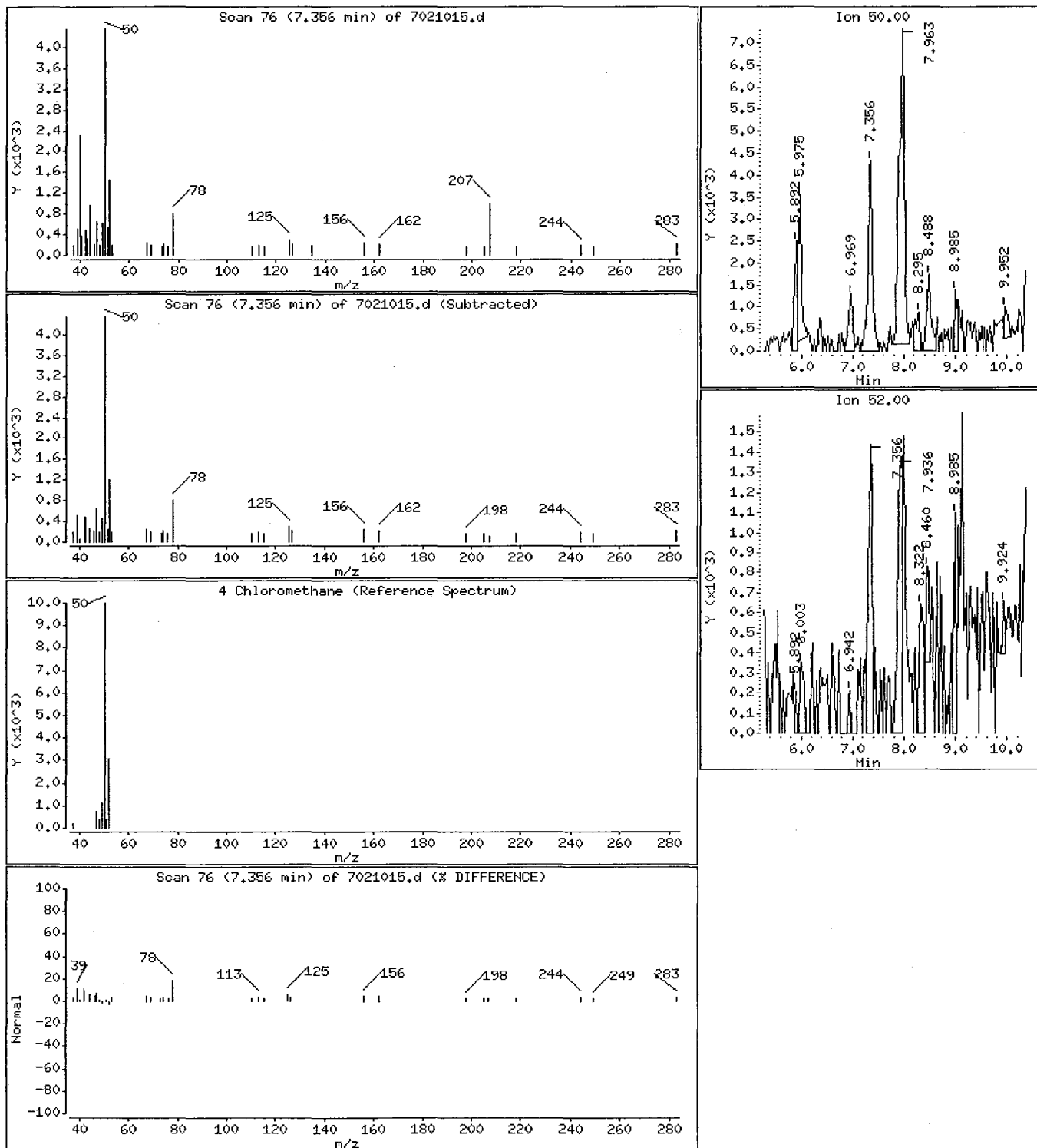
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4505 PPBV



0093

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 4

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

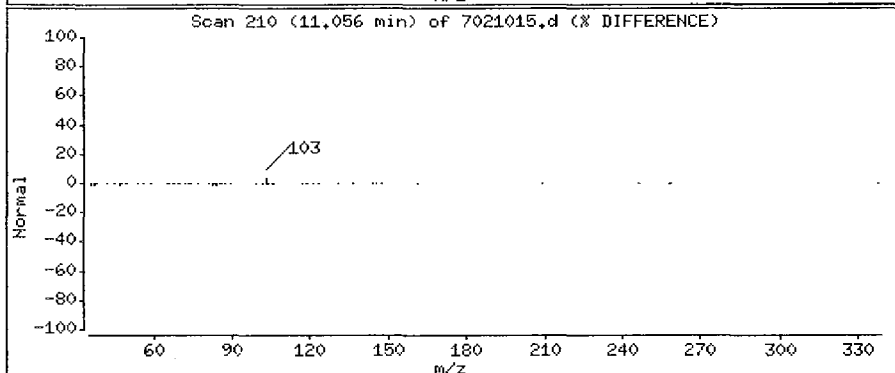
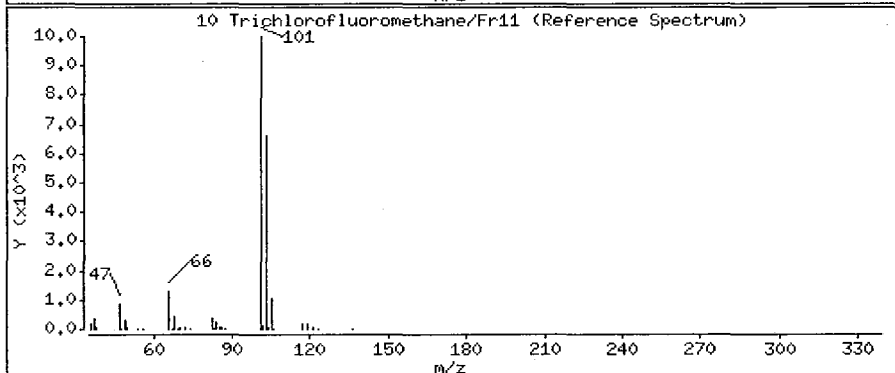
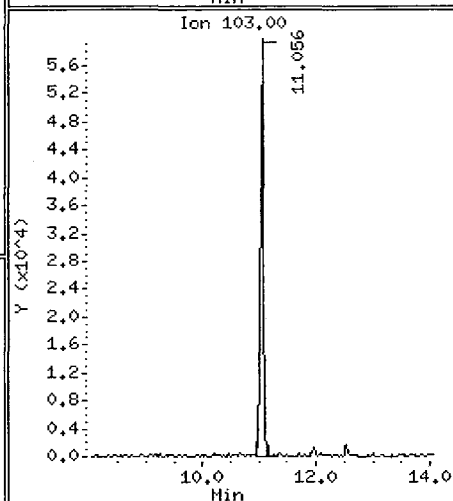
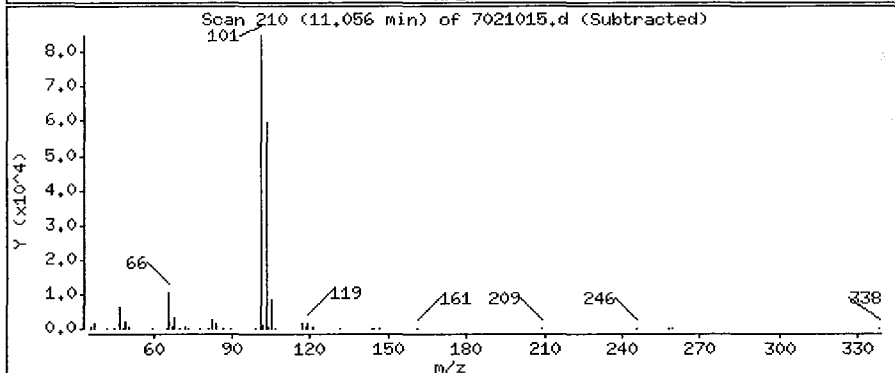
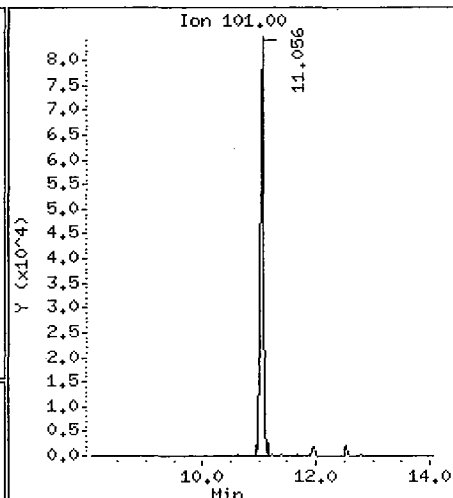
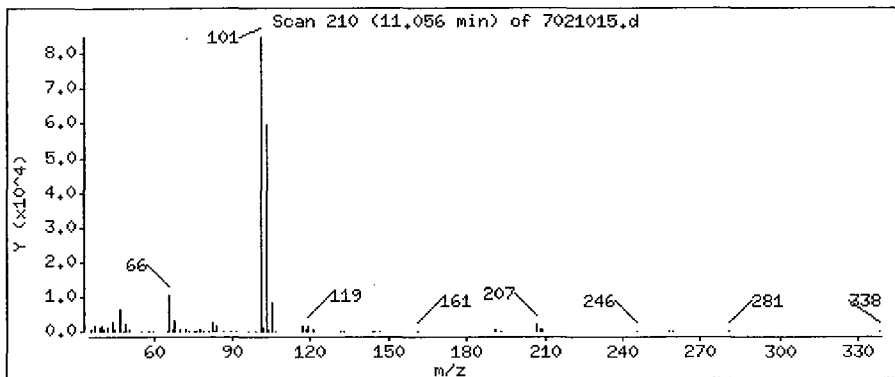
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 2.056 PPBV



0094

SCOEPAA00031766

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

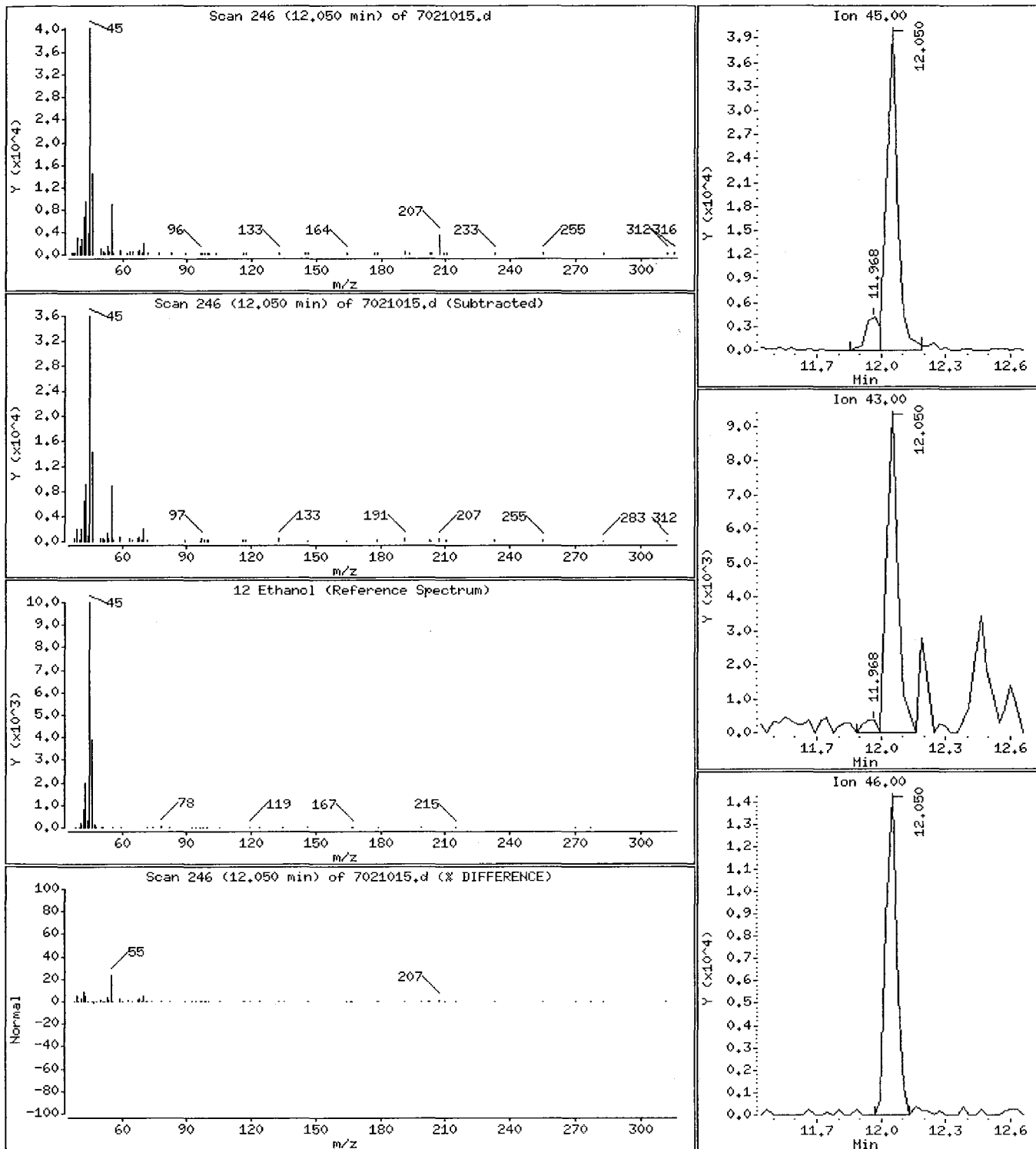
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 5.539 PPBV



0095

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 6

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

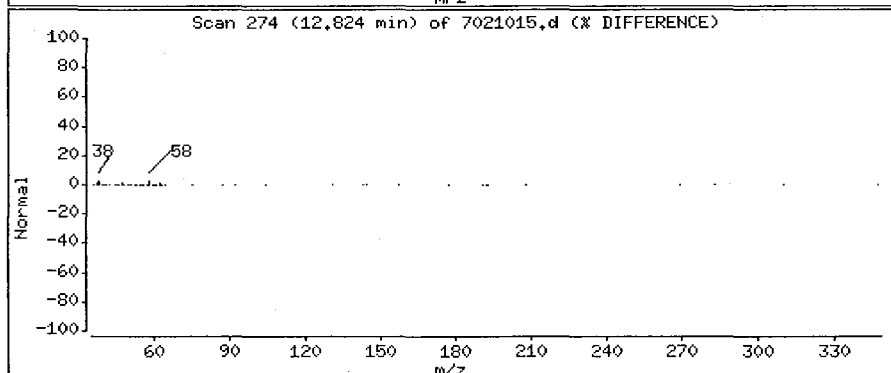
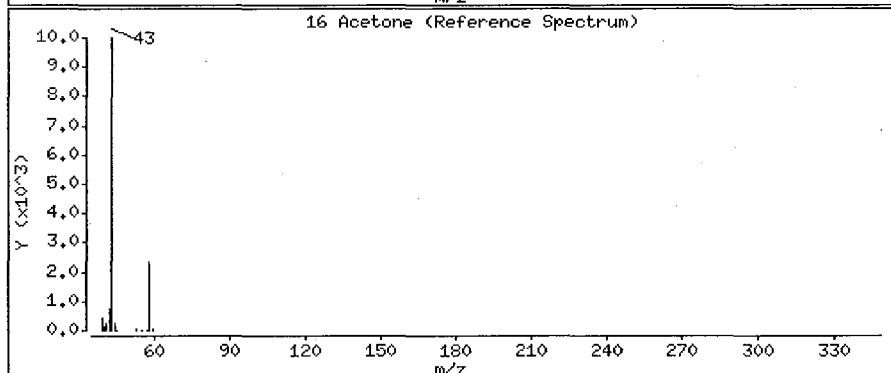
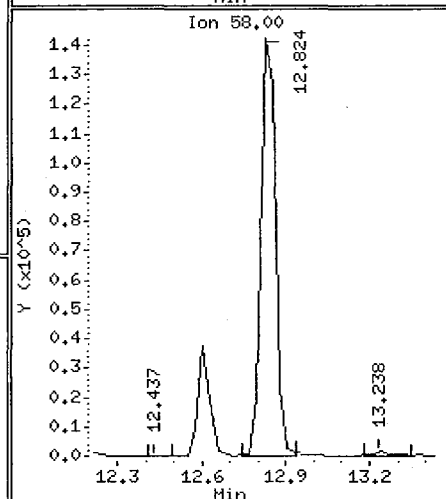
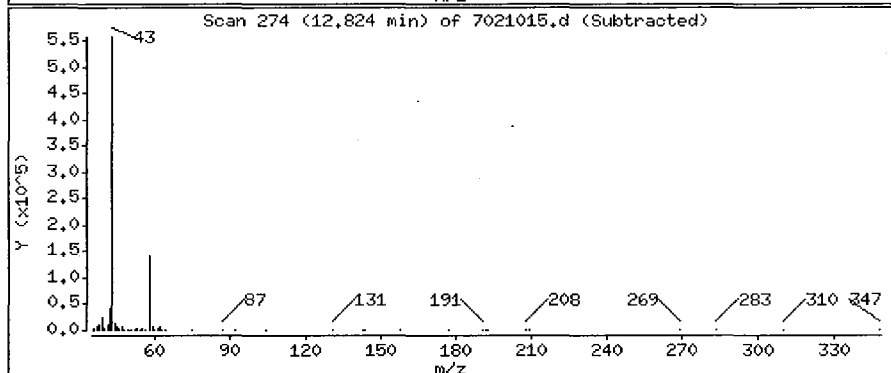
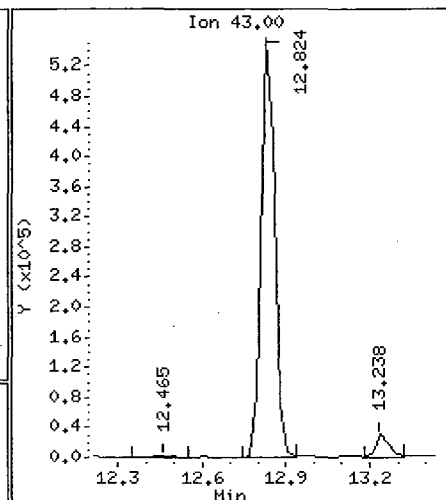
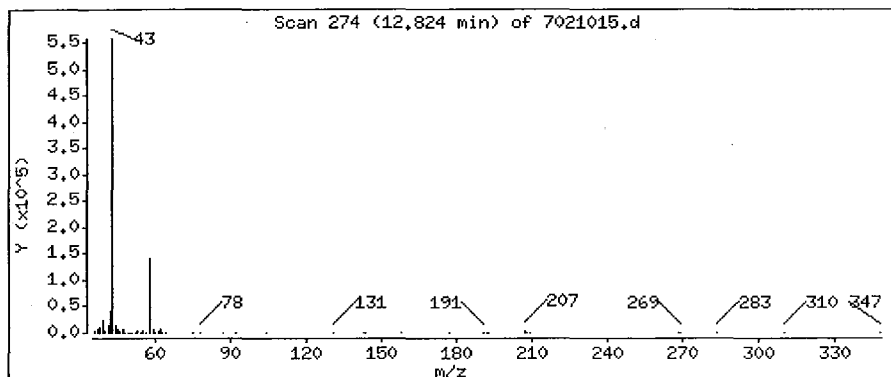
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

16 Acetone

Concentration: 14,016 PPBV



0096

SCOEPAA00031768

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

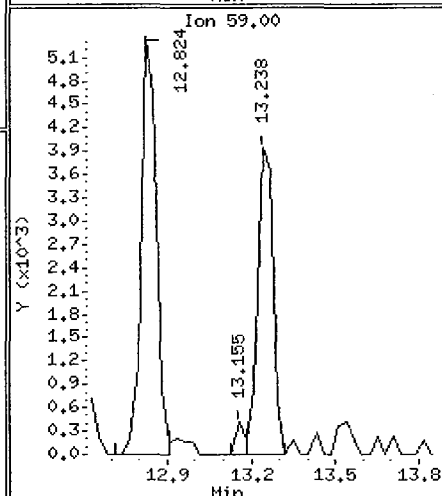
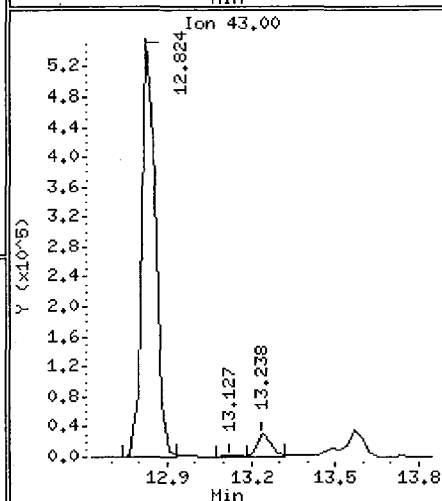
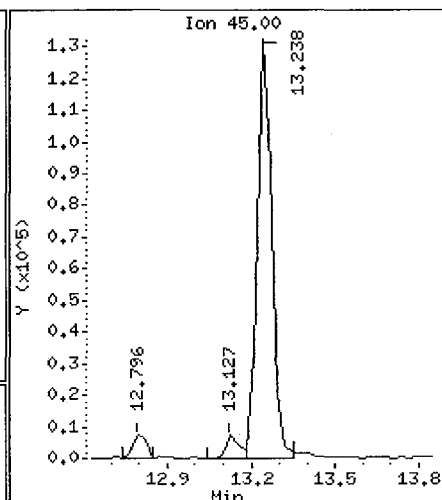
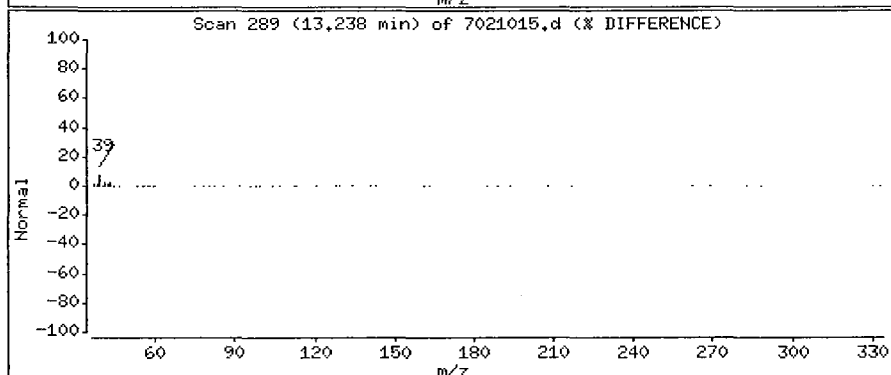
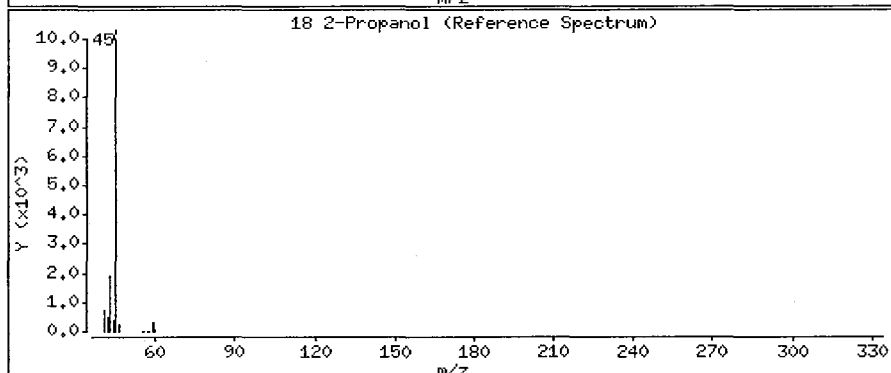
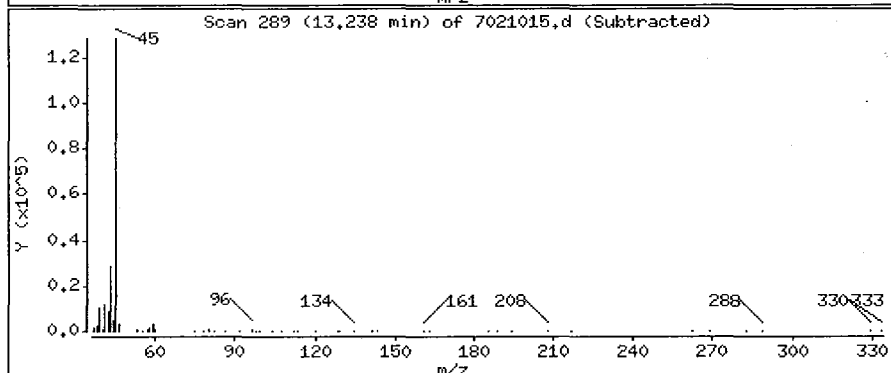
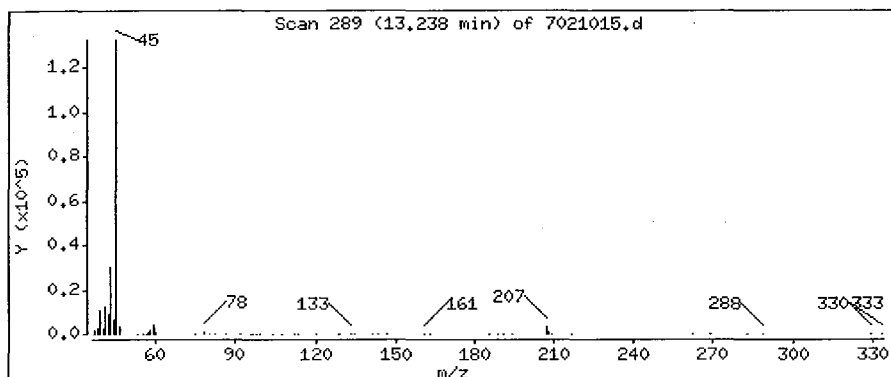
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 3,679 PPBW



0097

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 8

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

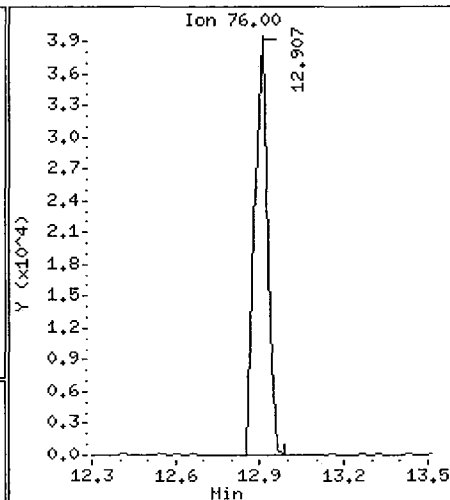
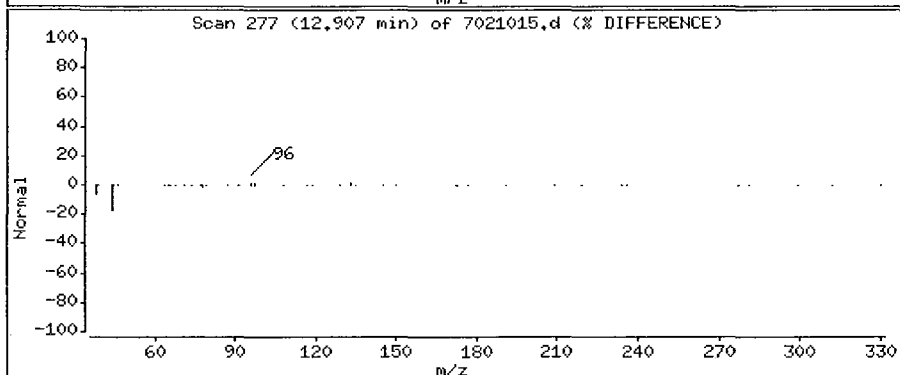
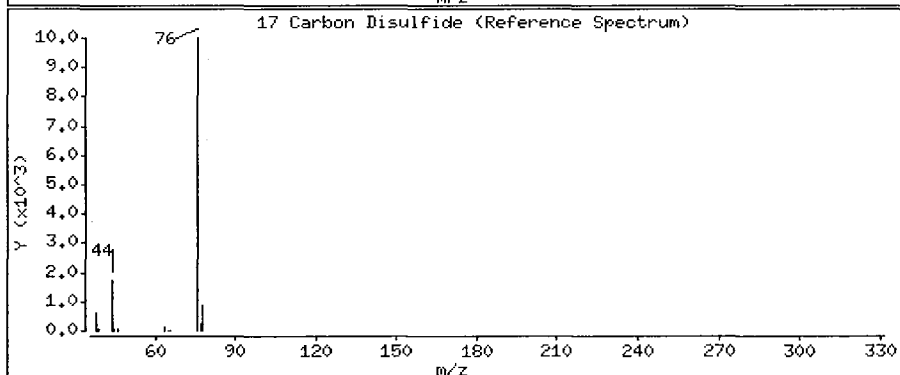
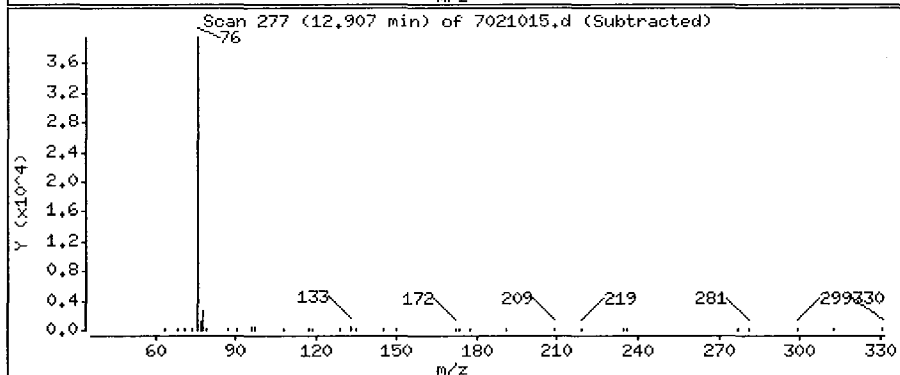
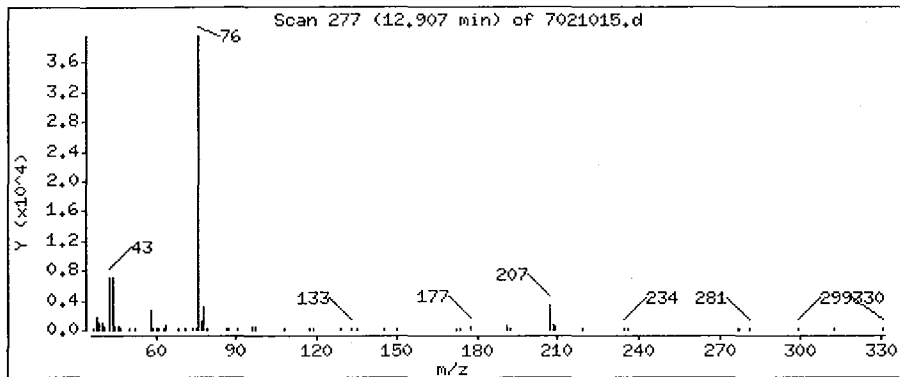
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.7244 PPBV



0098

SCOEP00031770

Data File: /chem/msd7.i/7-10feb,b/7021015.d

Page 9

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

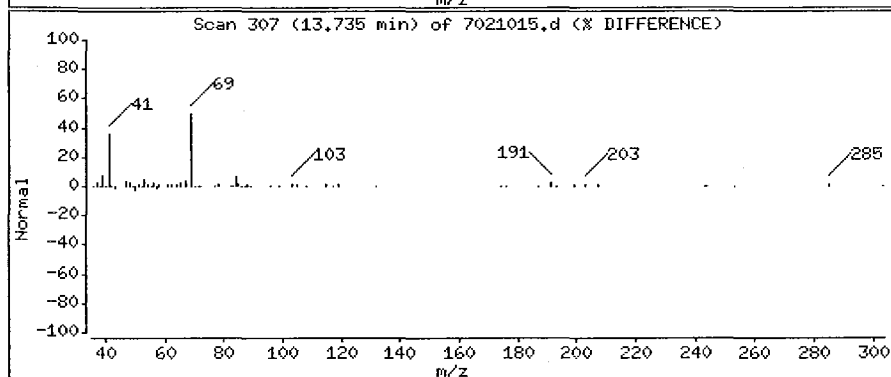
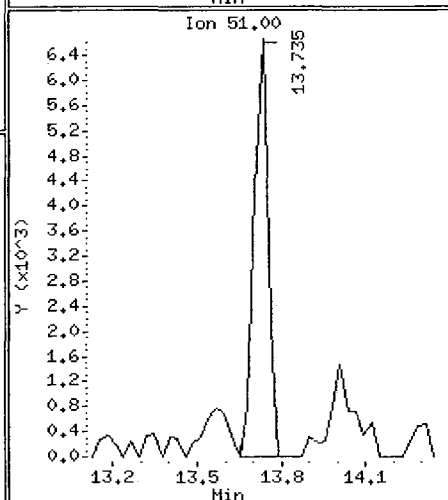
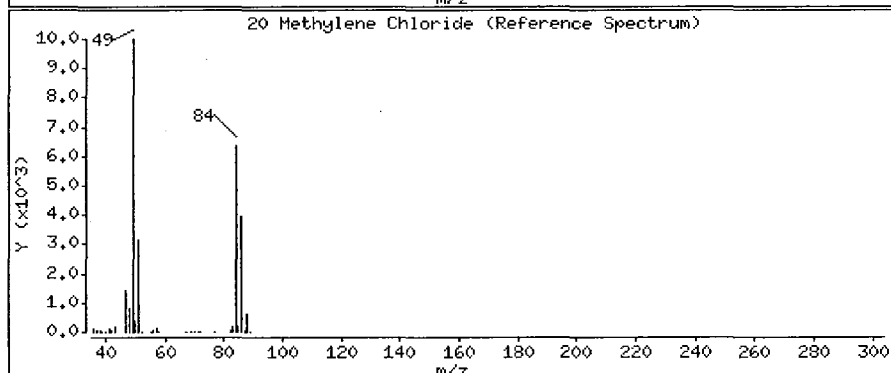
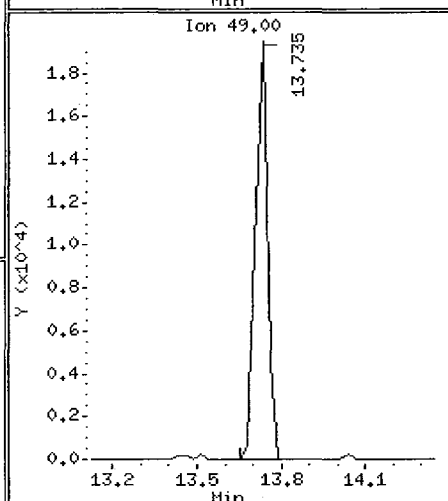
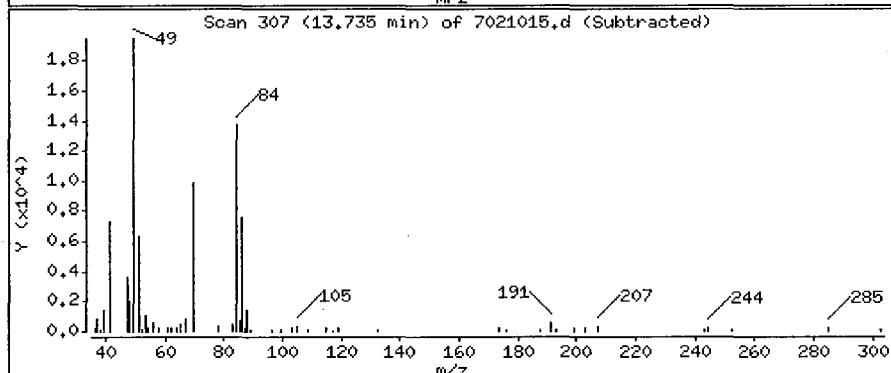
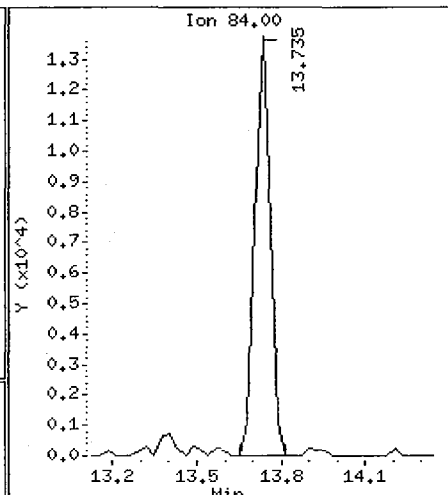
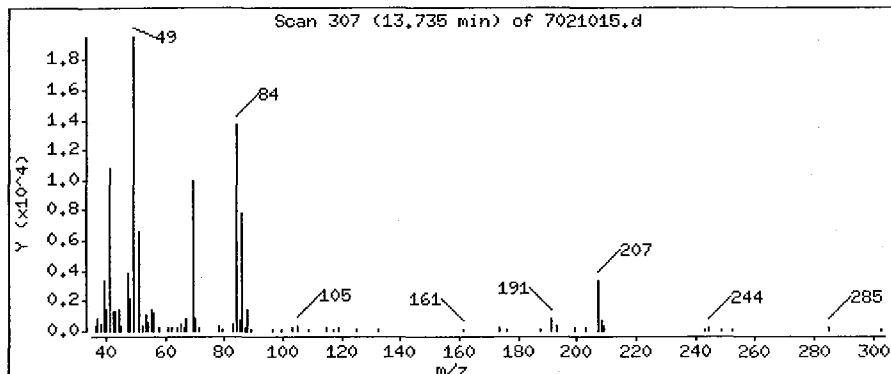
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.9644 PPBV



0099

SCOEPAA00031771

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 10

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

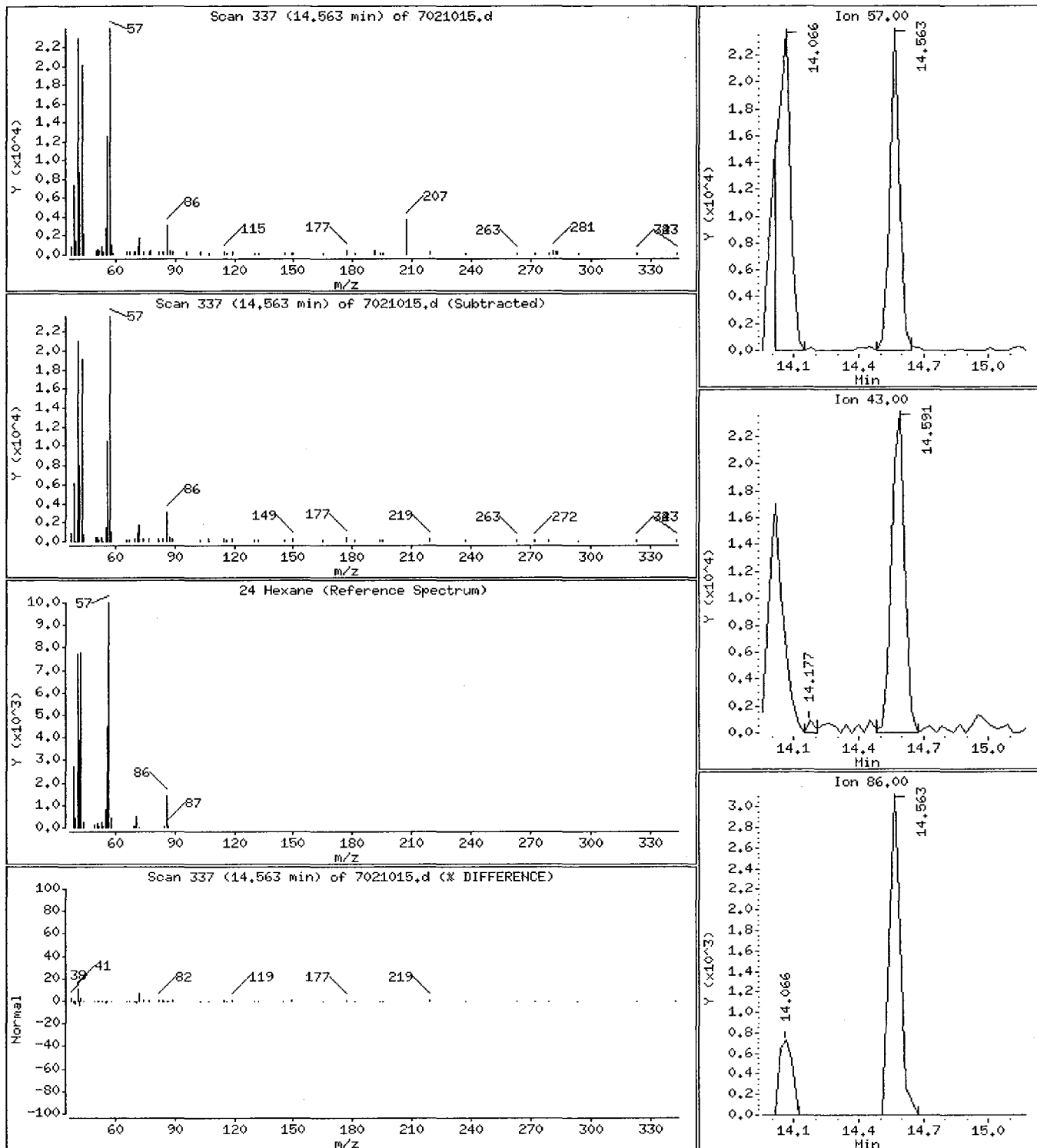
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.7227 PPBV



0100

SCOEPAA00031772

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 11

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

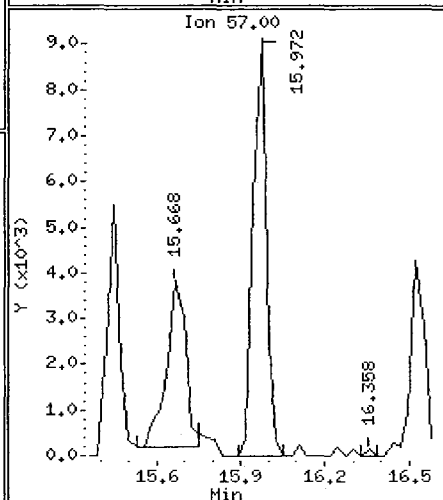
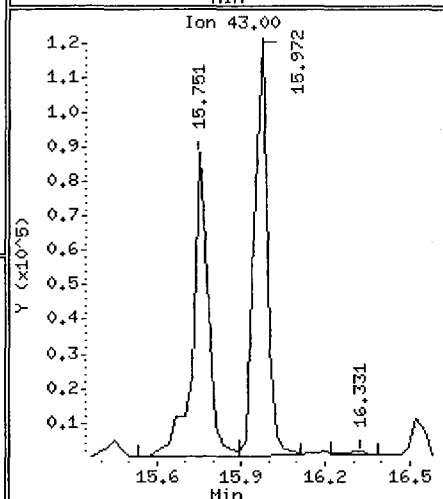
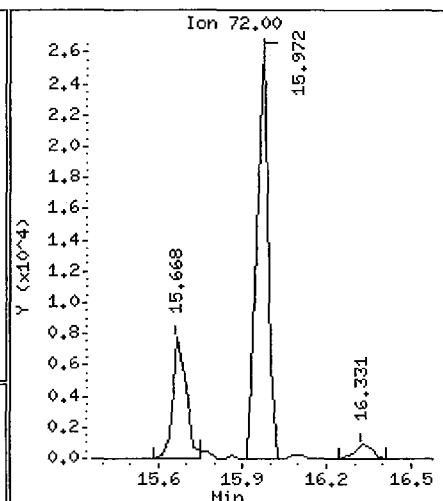
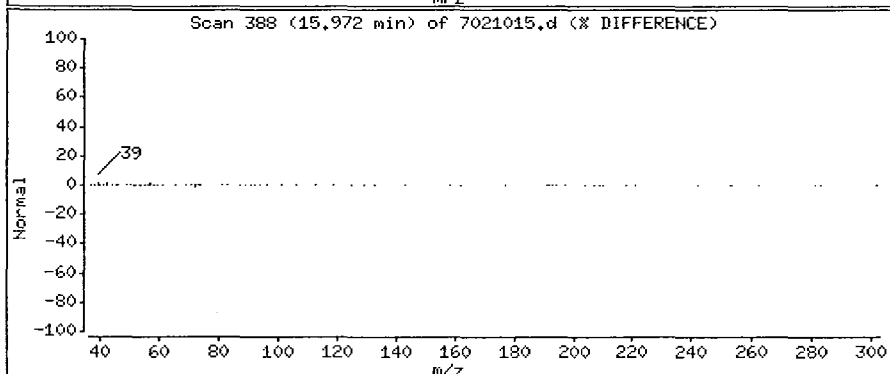
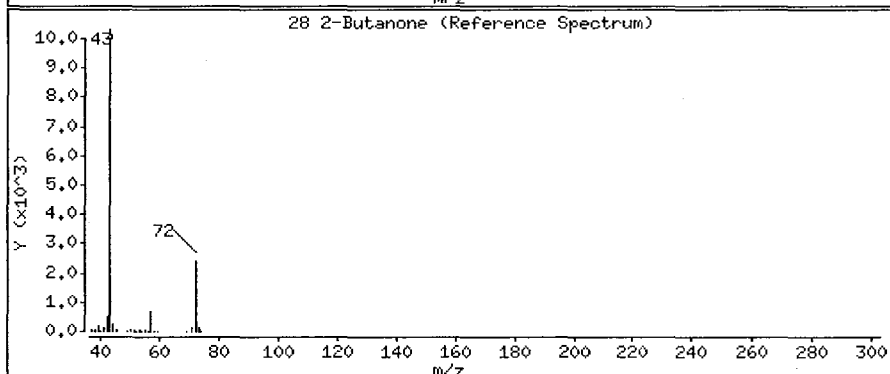
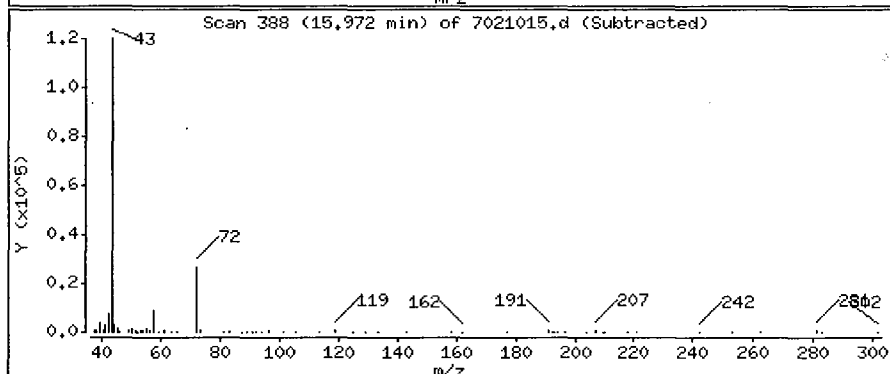
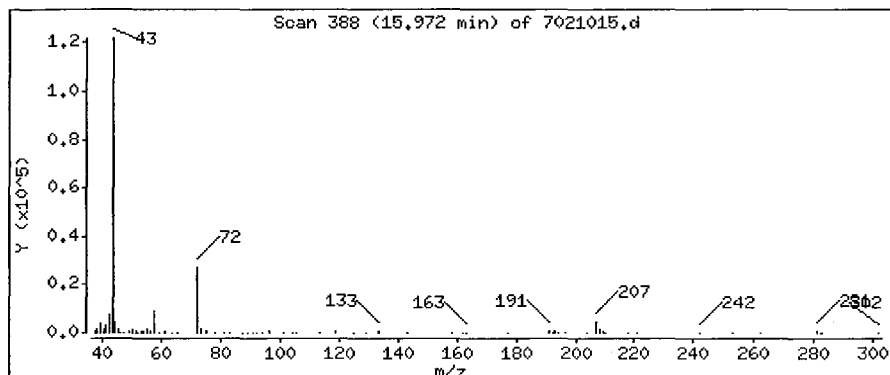
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 2.570 PPBV



0101

SCOEP00031773

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

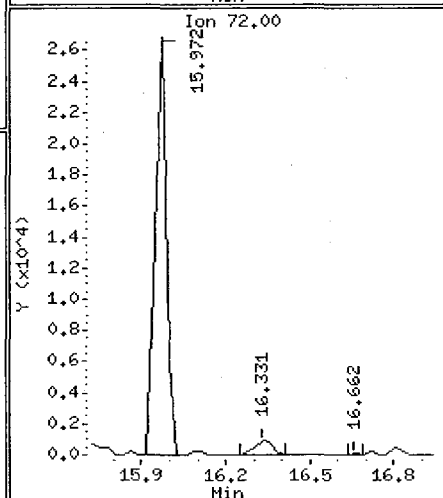
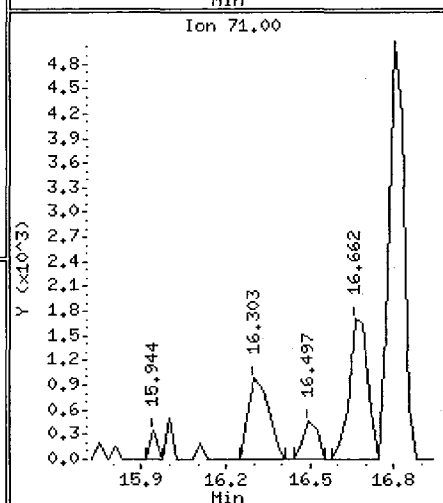
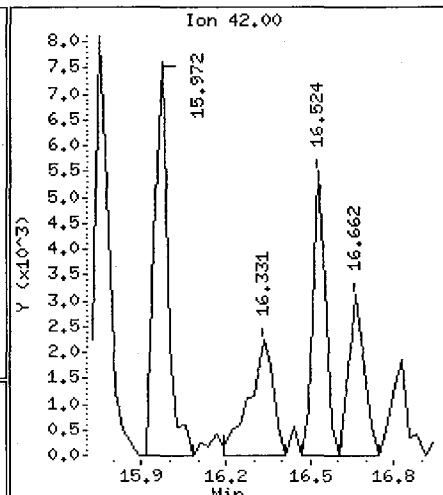
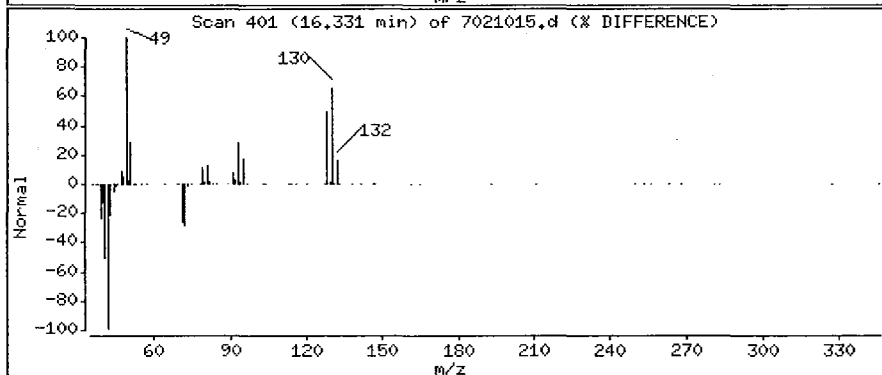
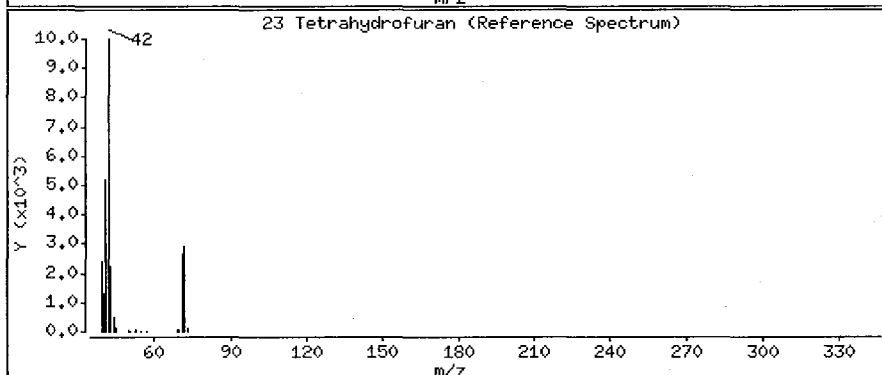
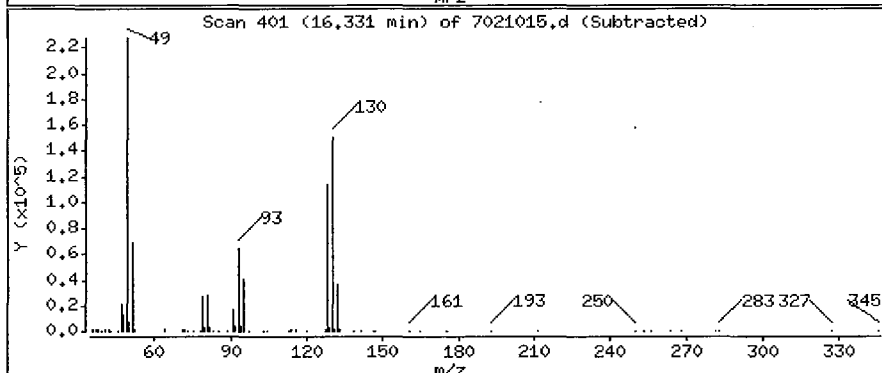
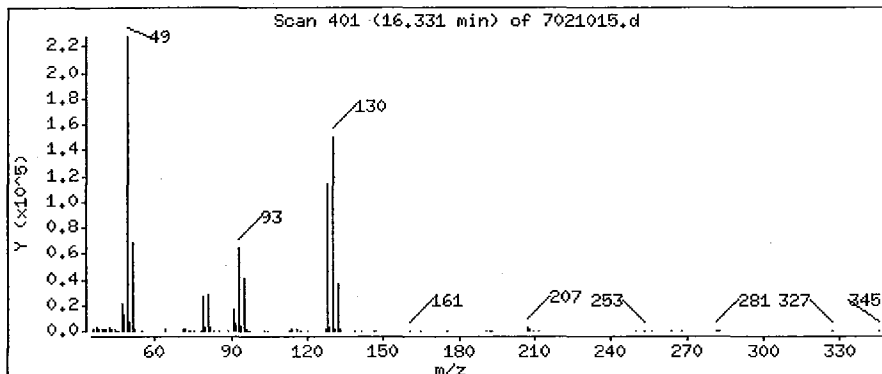
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1729 PPBV



0102

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

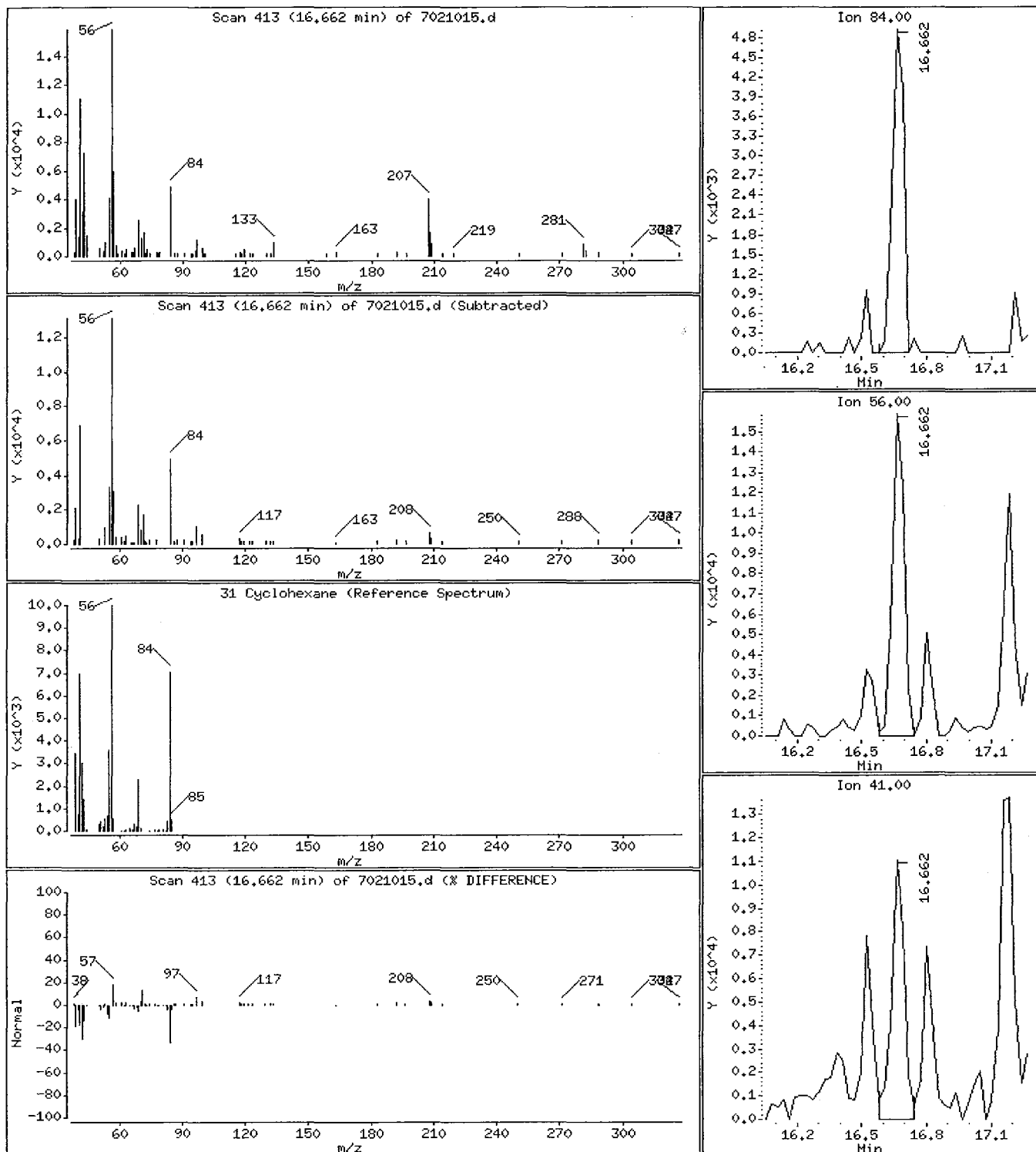
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.3237 PPBV



0103

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

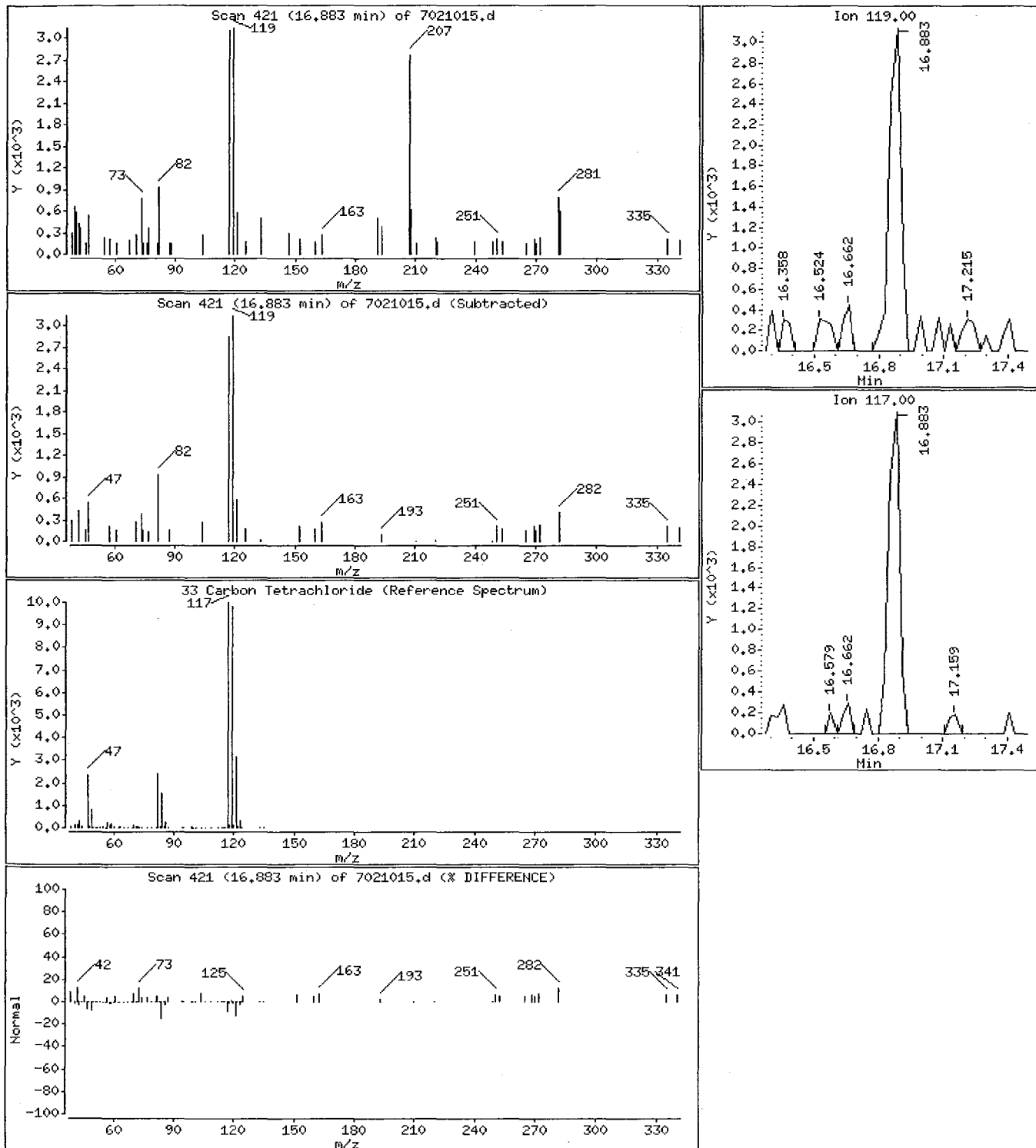
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1276 PPBV



0104

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 15

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

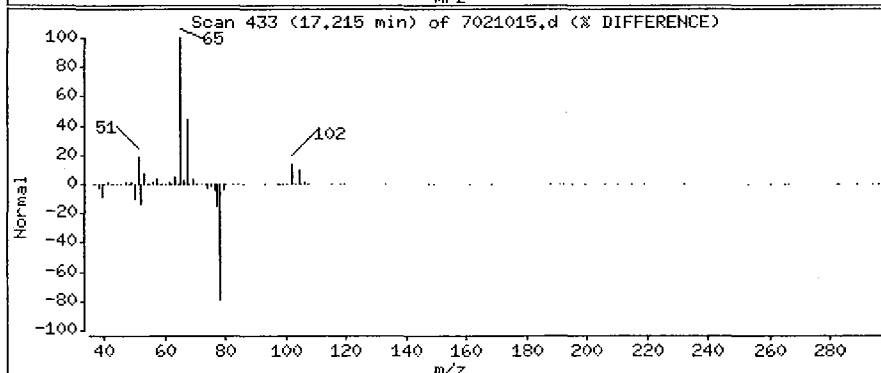
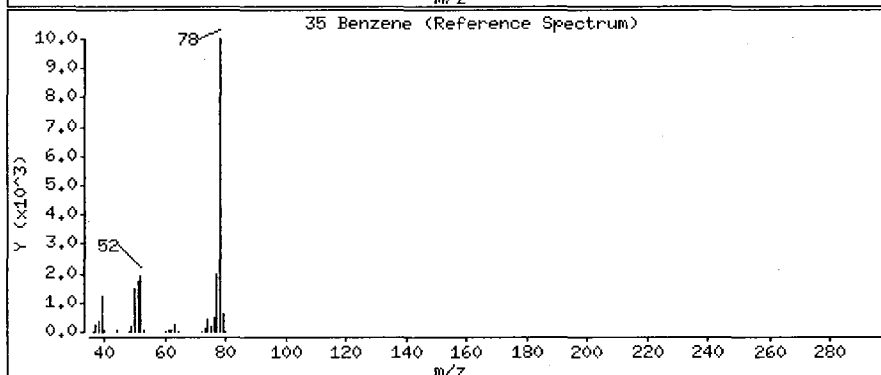
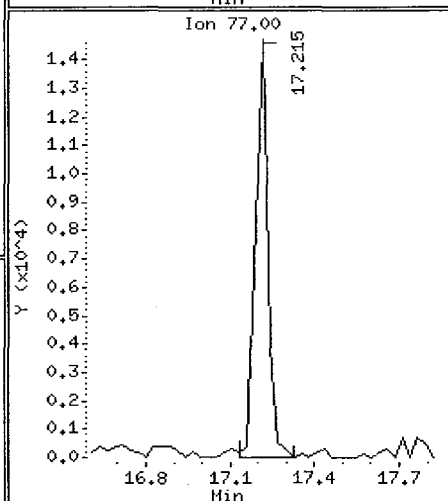
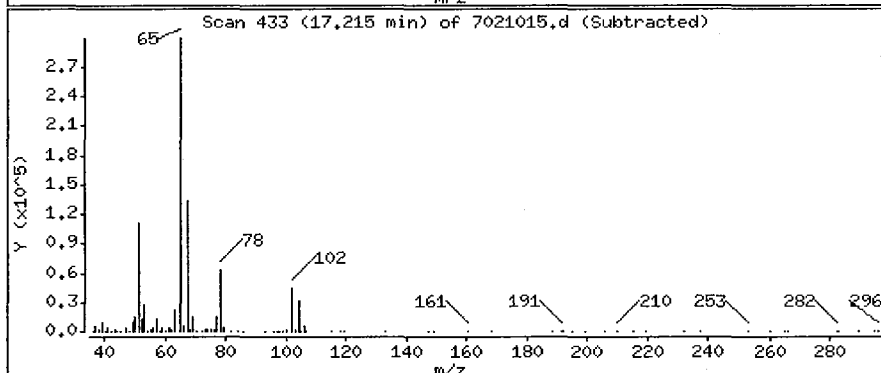
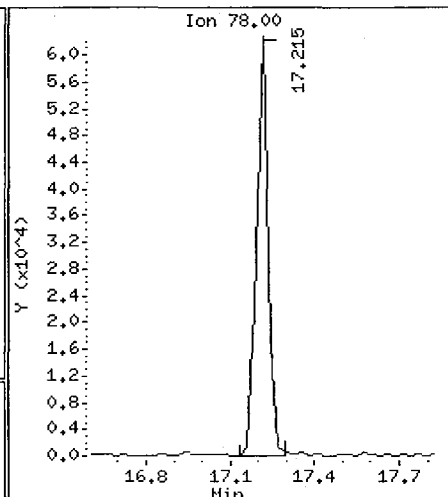
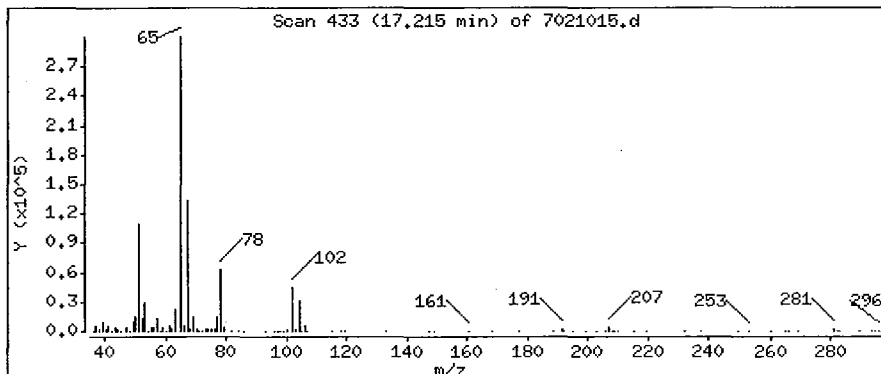
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1.031 PPBV



0105

SCOEP00031777

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

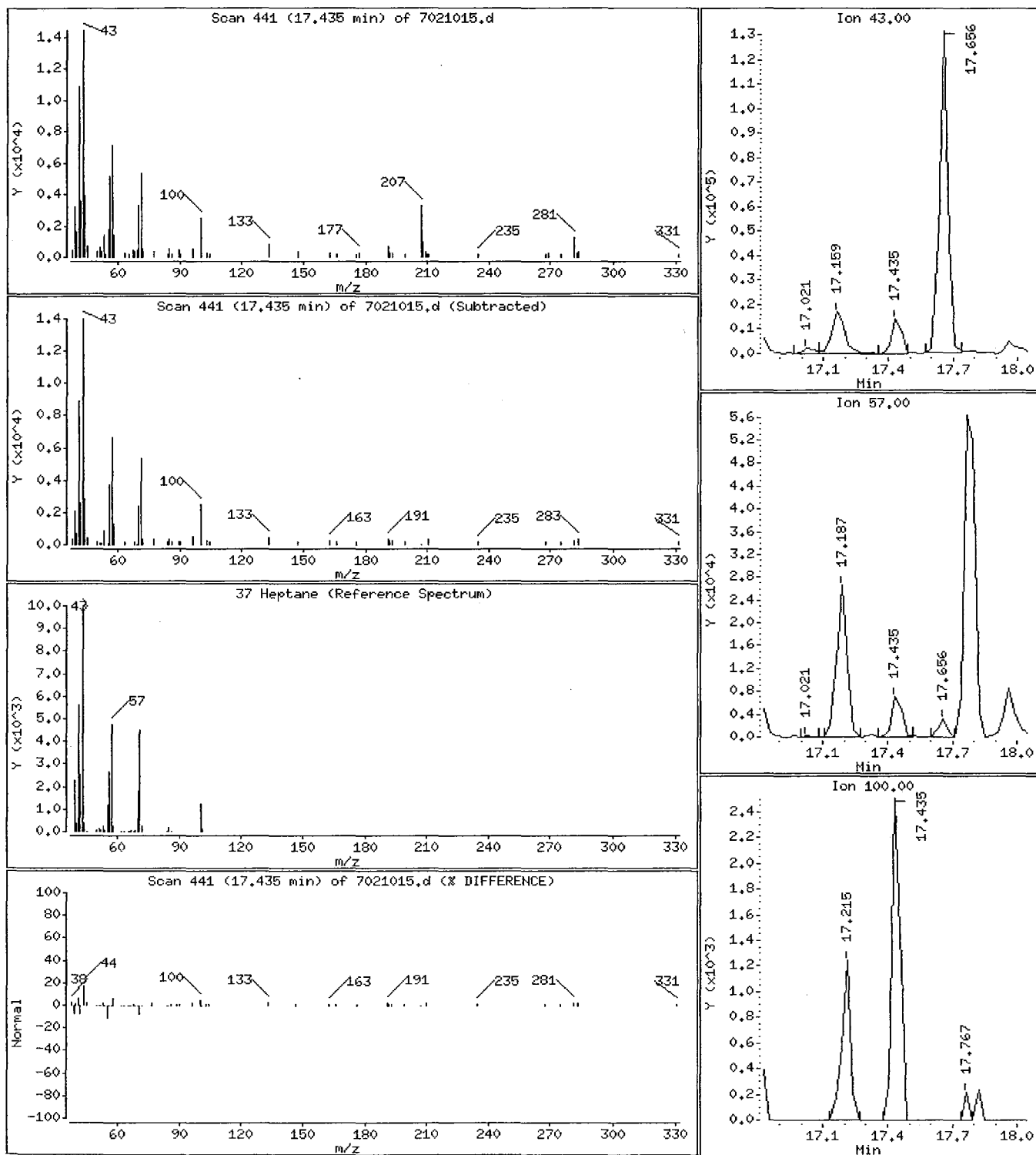
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

37 Heptane

Concentration: 0.4707 PPBV



0106

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

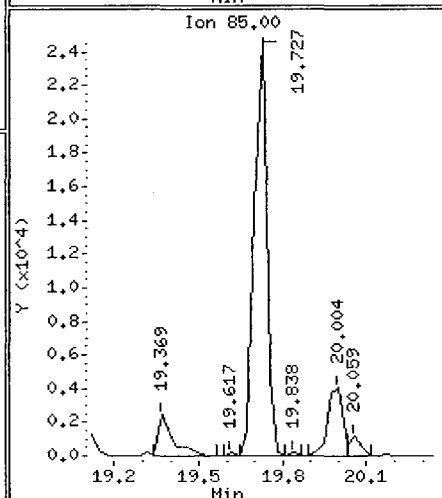
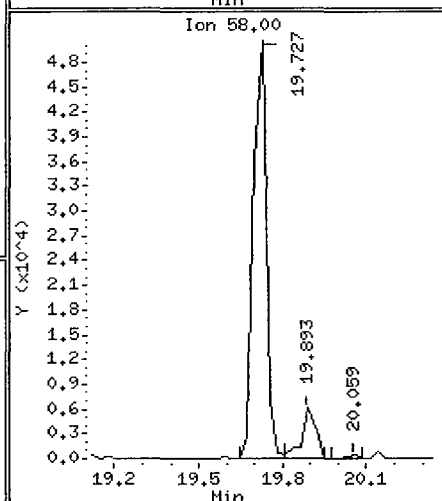
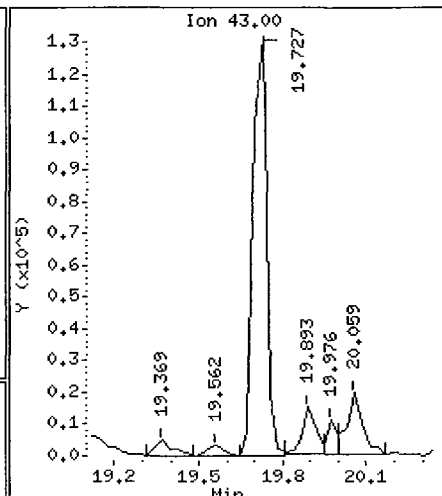
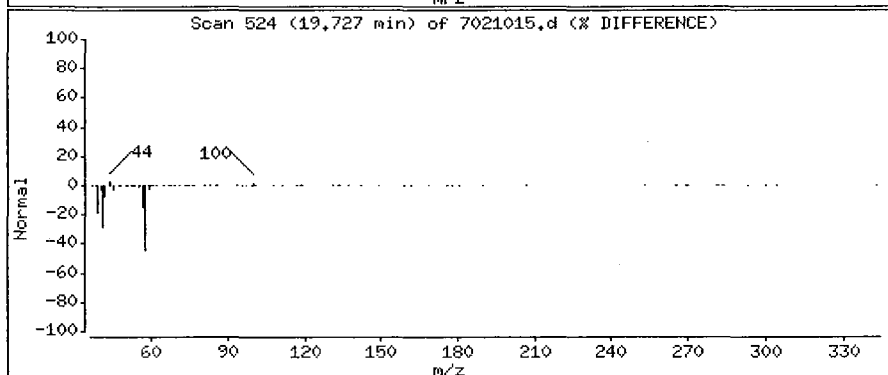
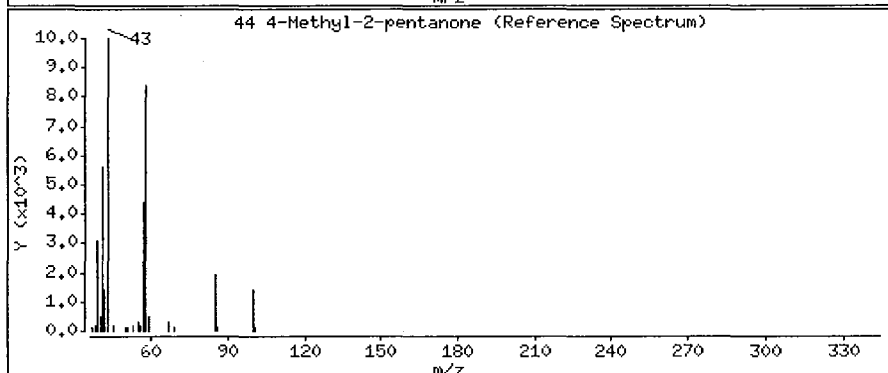
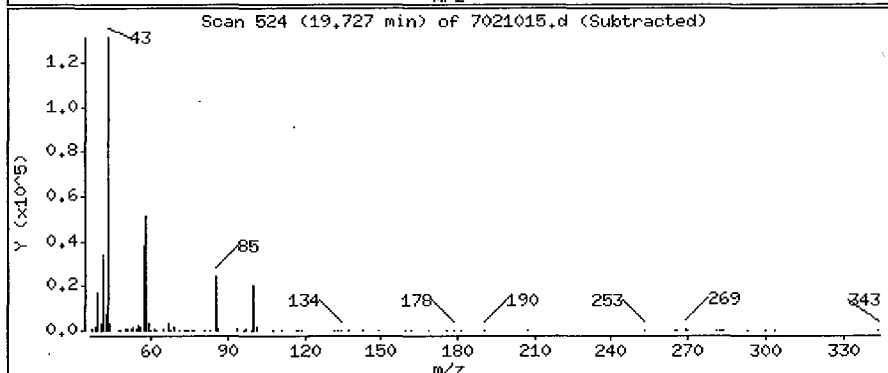
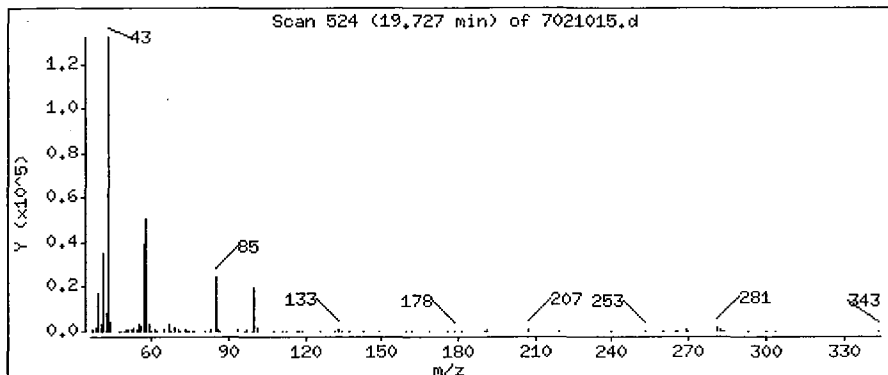
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 4.006 PPBV



0107

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 18

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

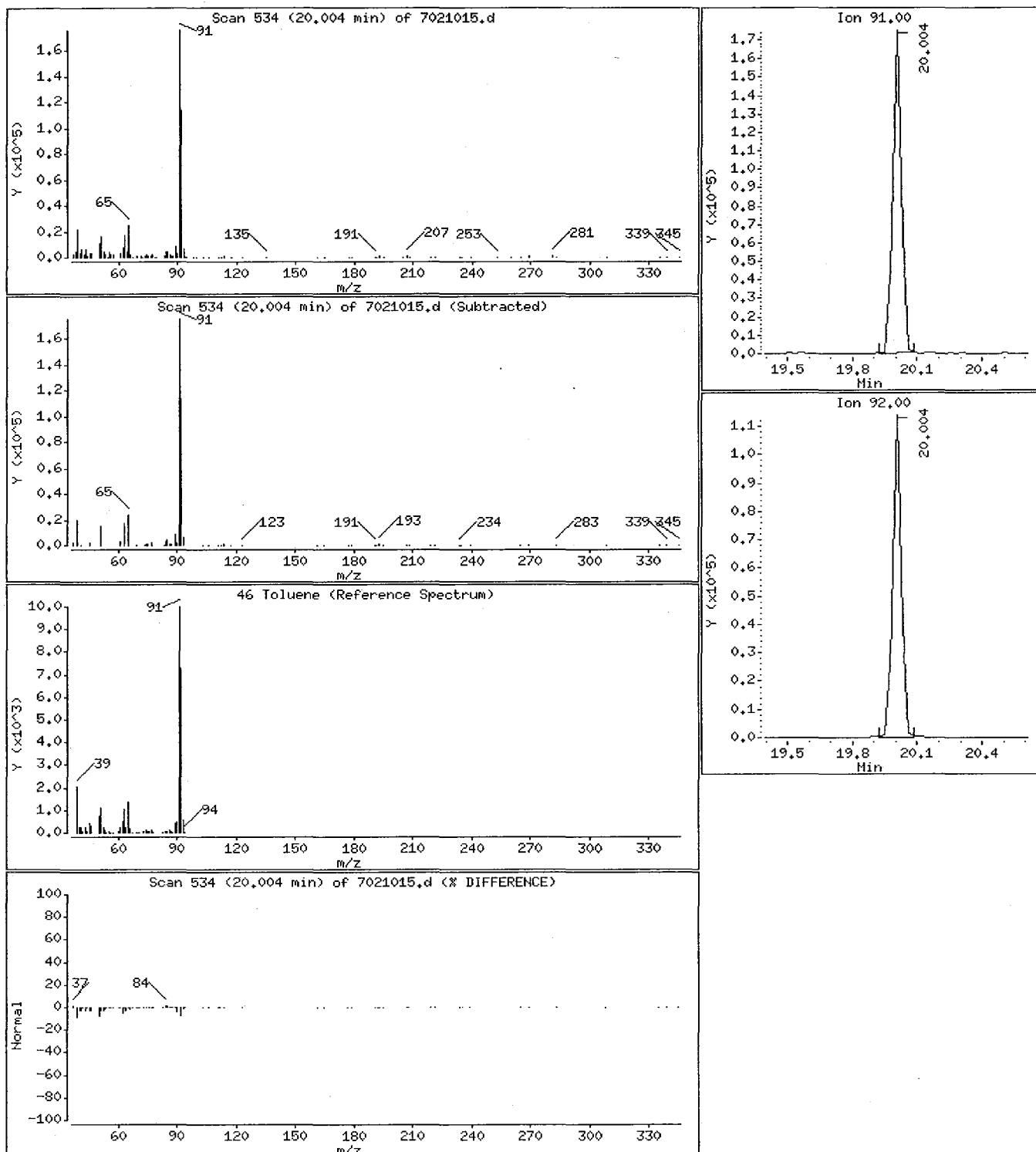
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 2.425 PPBV



0108

SCOEPAA00031780

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 19

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

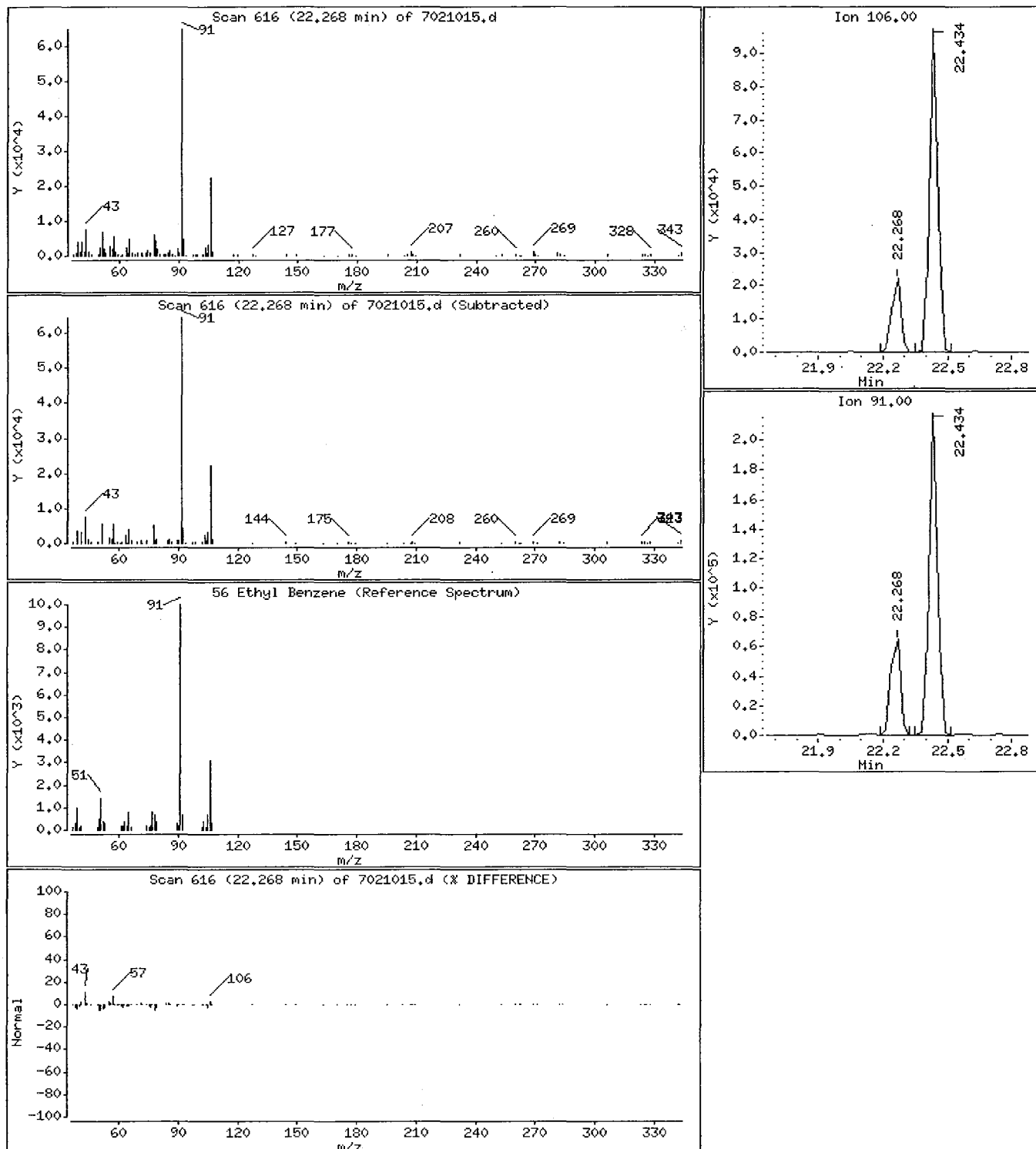
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.9712 PPBV



0109

SCOEP00031781

Data File: /chem/msd7.i/7-10feb.b/7021015.d

Page 20

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

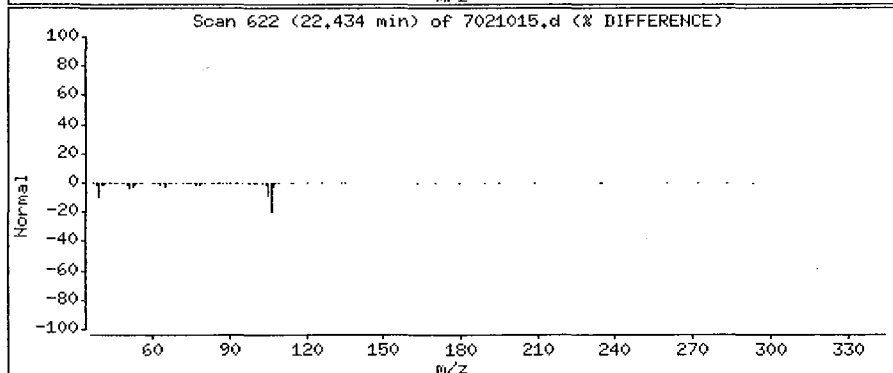
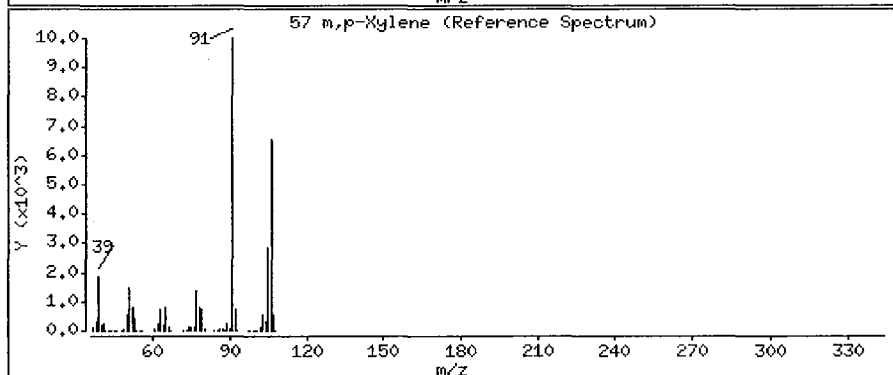
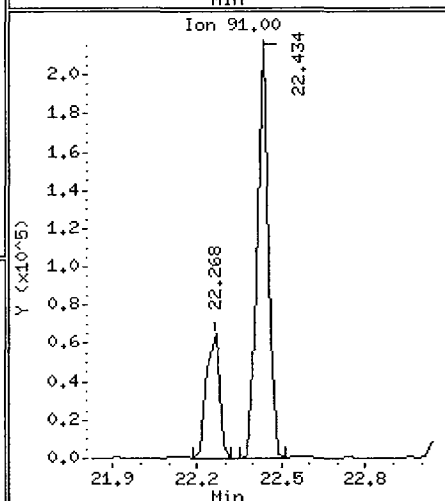
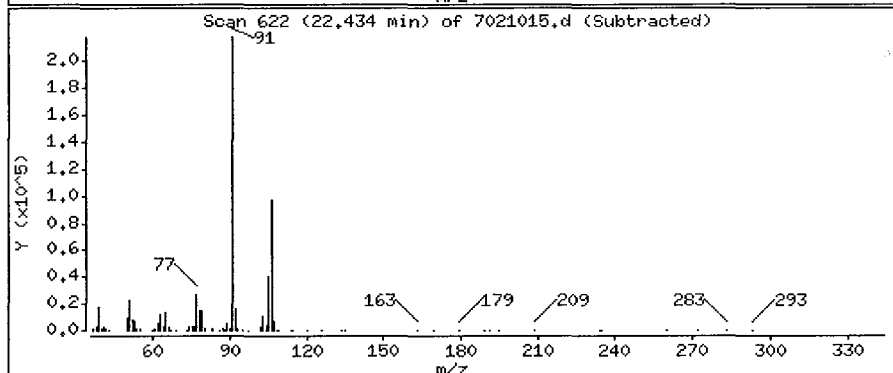
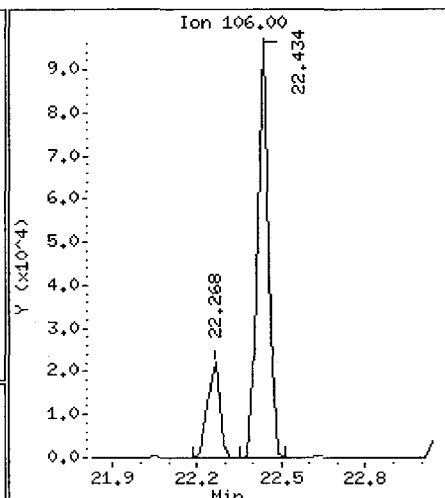
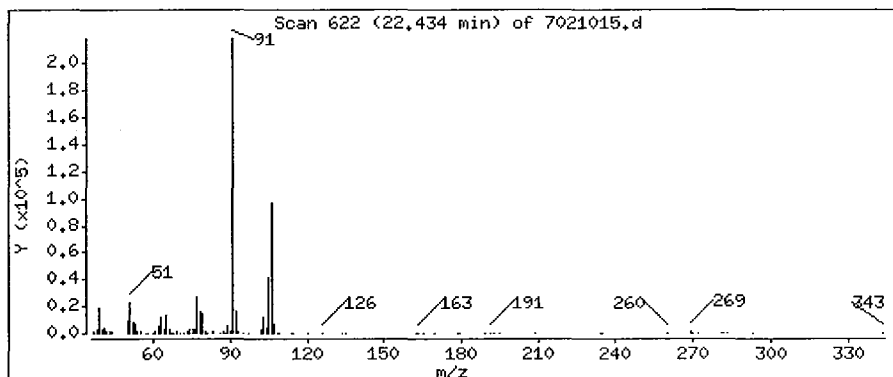
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 3.087 PPBV



0110

SCOEPAA00031782

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

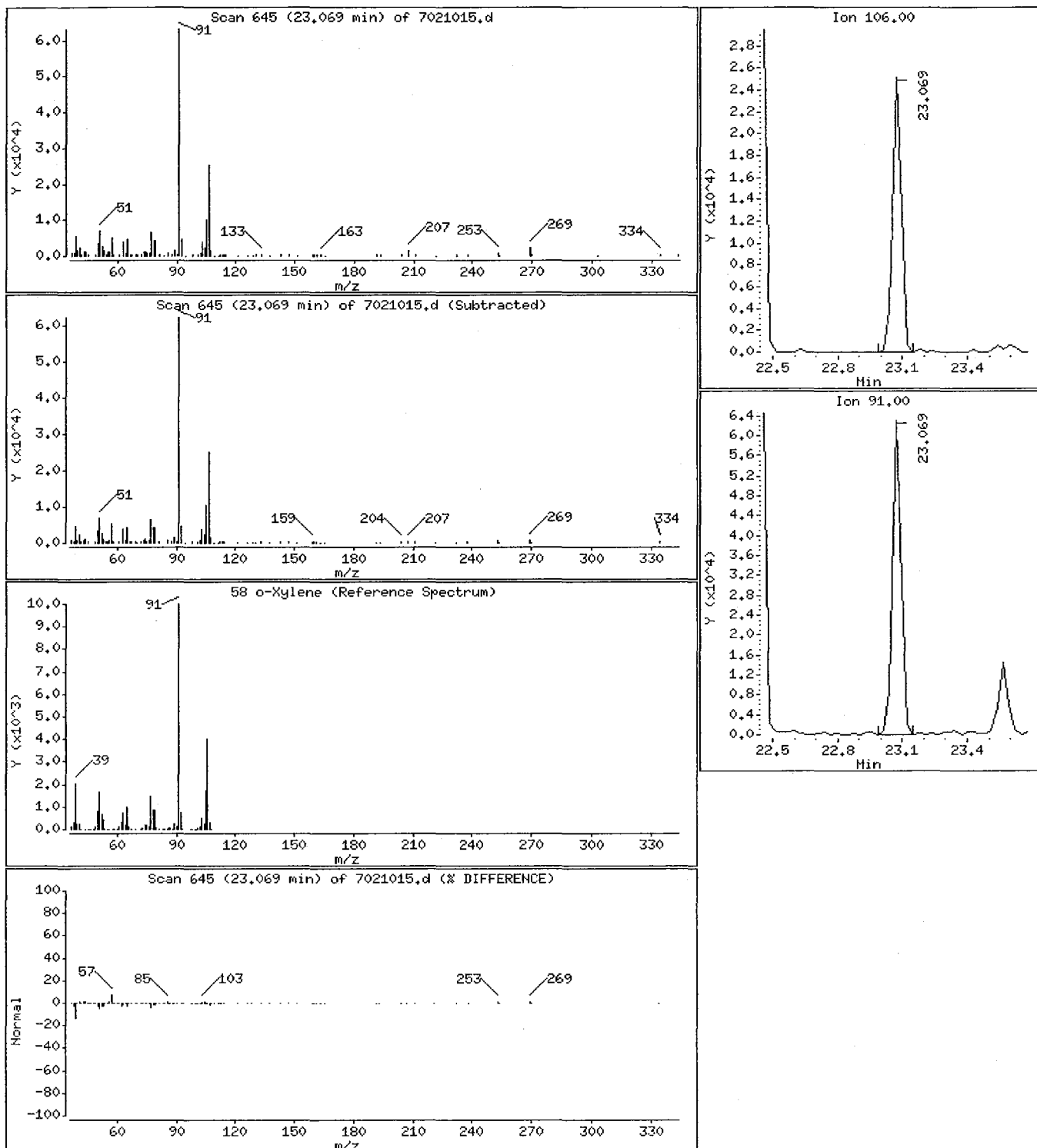
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 1.057 PPBV



0111

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

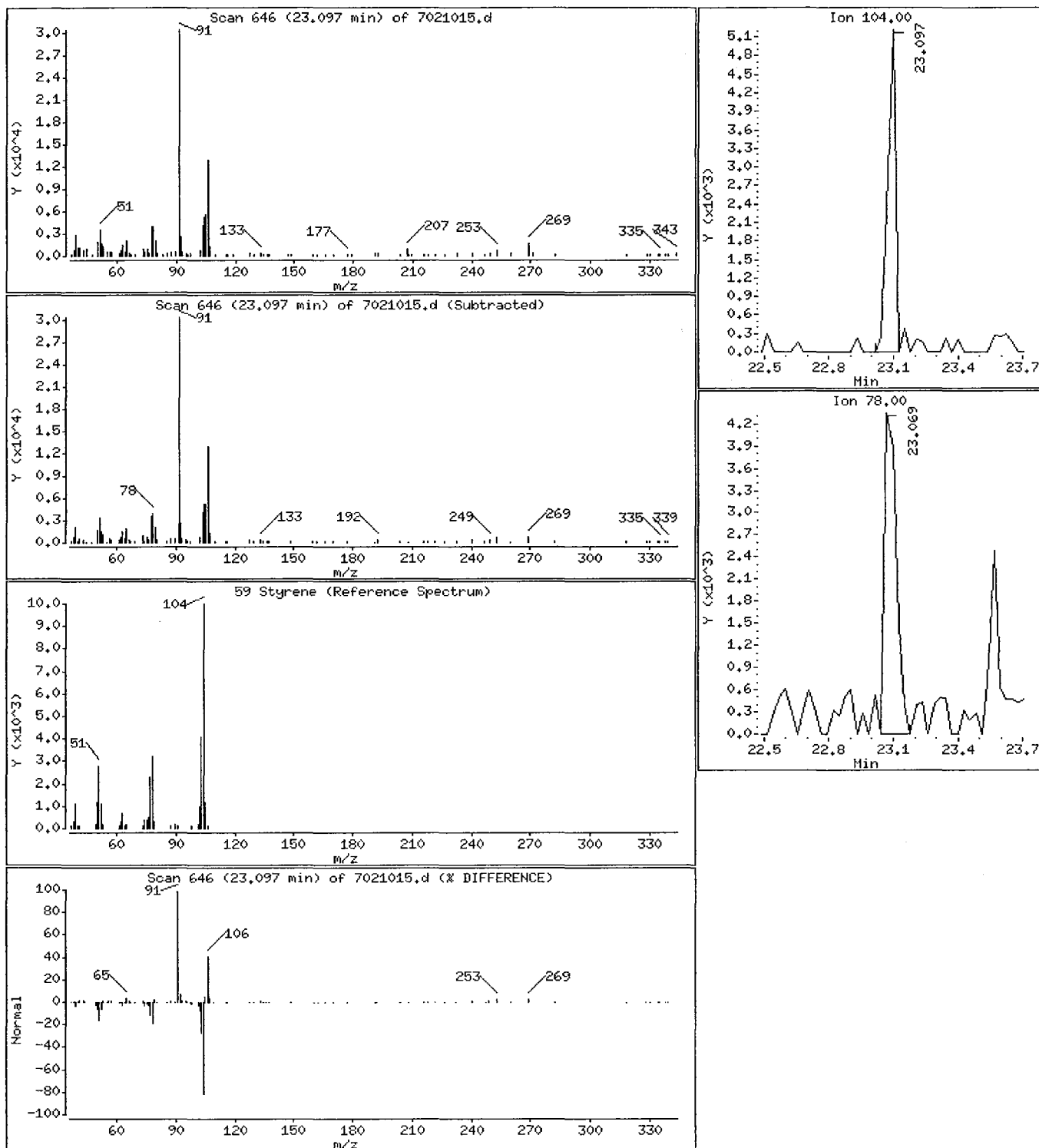
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1240 PPBV



0112

SCOEP00031784

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

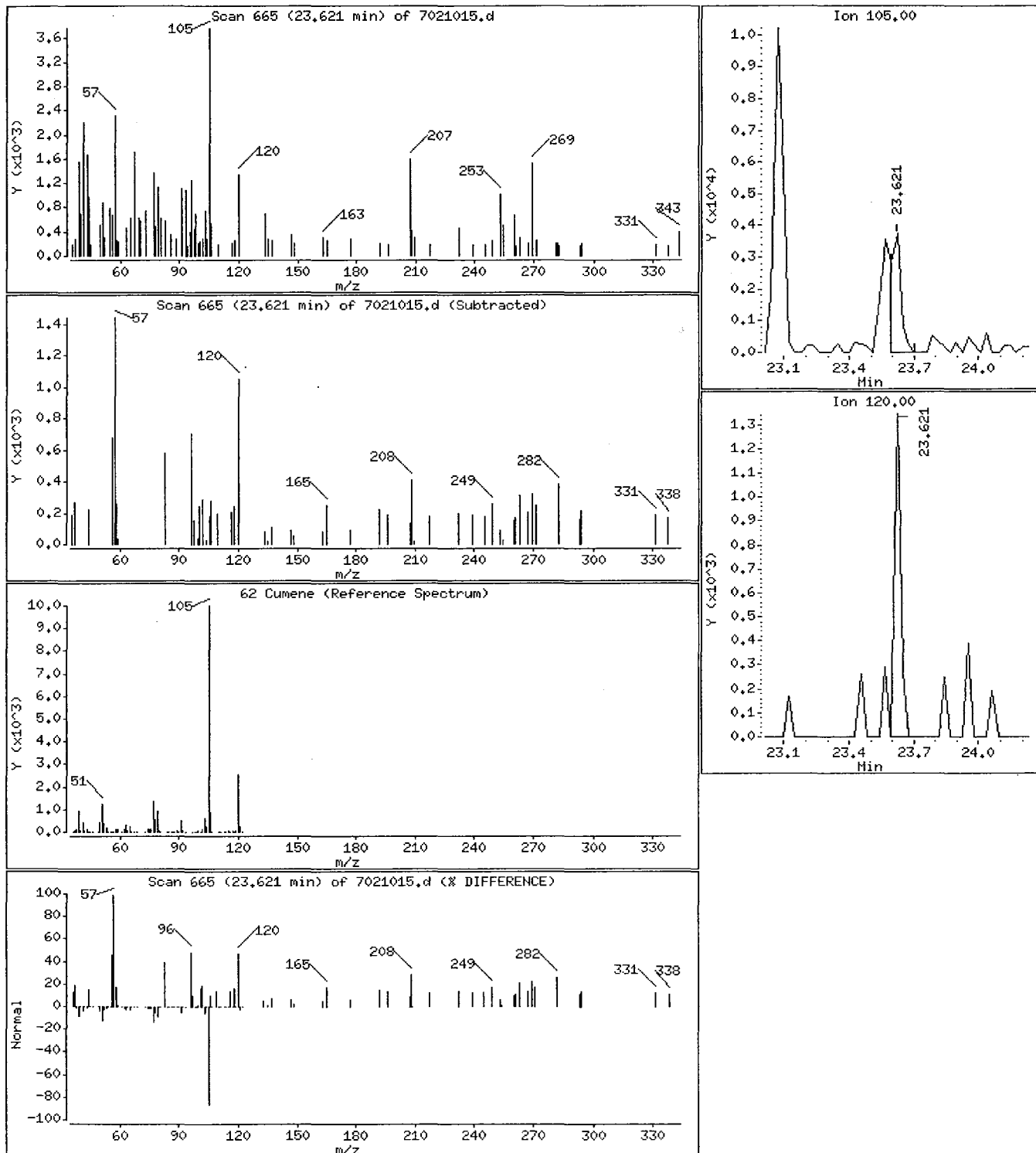
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.07728 PPBV



0113

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

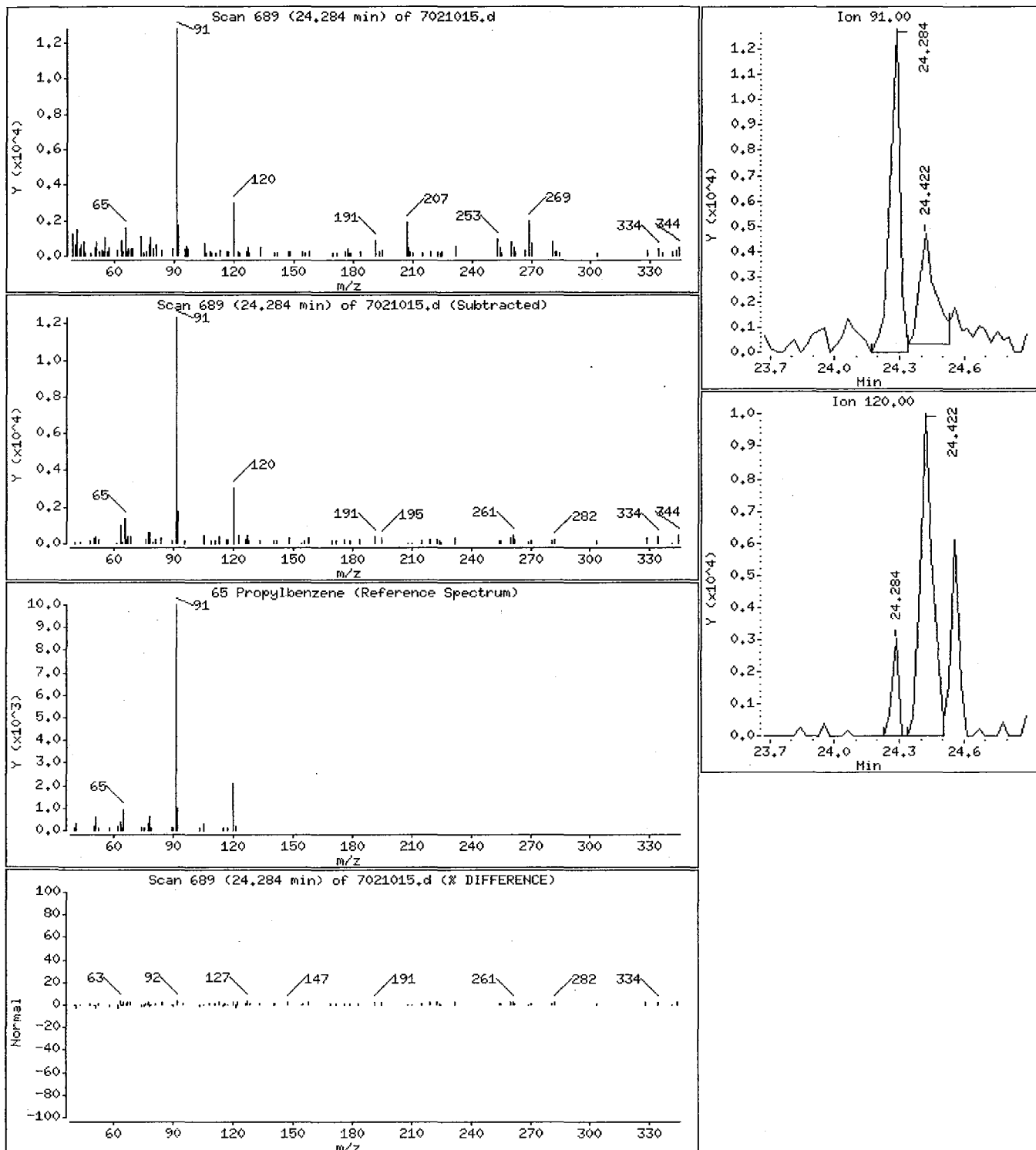
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1770 PPBV



0114

SCOEPAA00031786

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

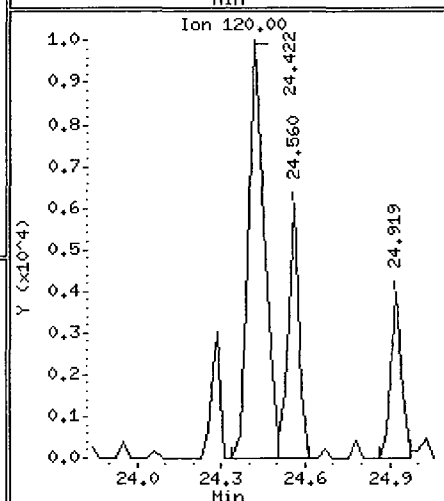
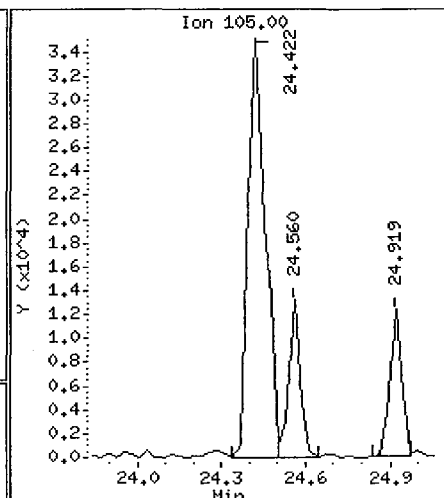
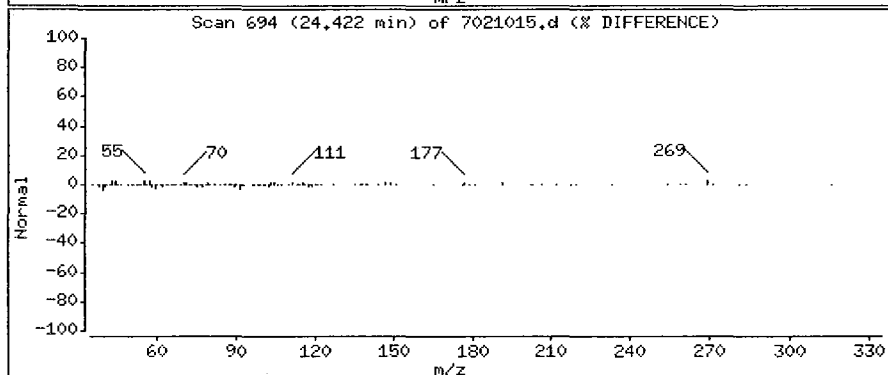
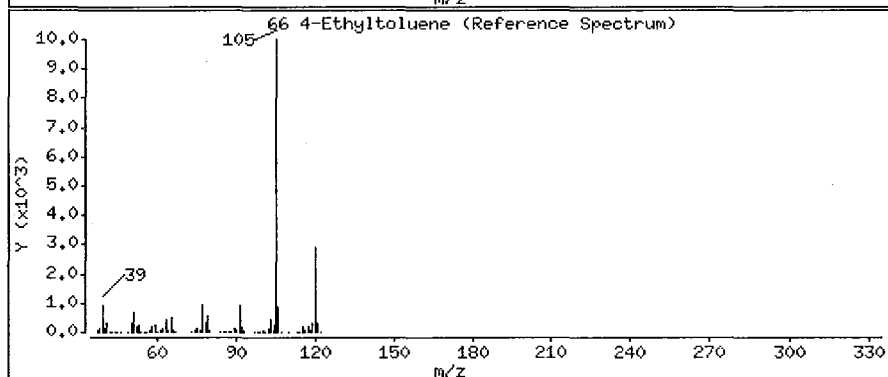
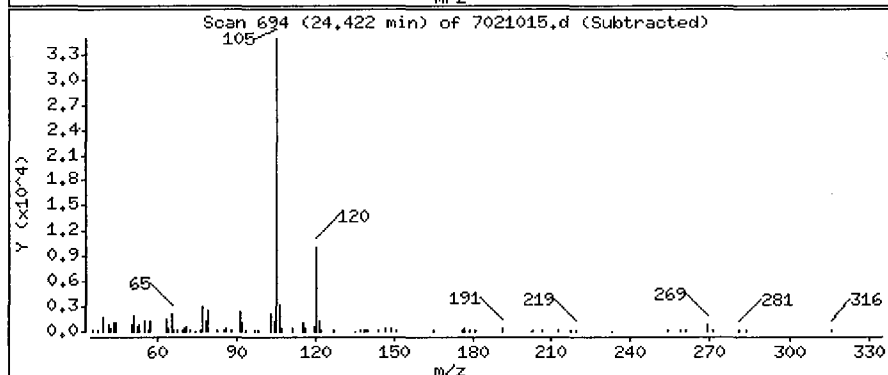
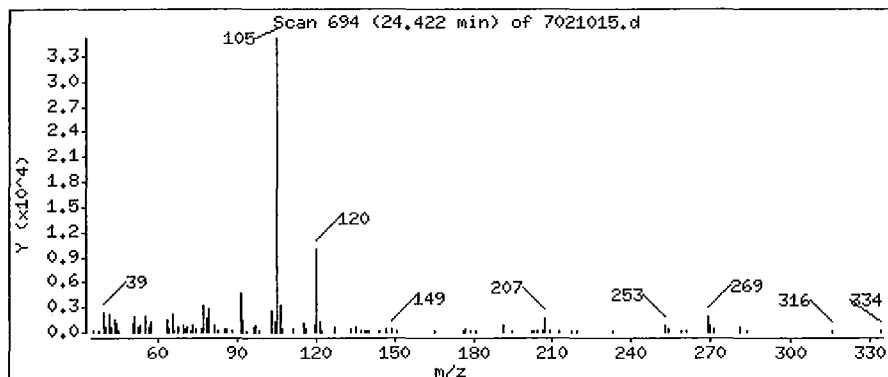
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.8503 PPBV



0115

SCOEPAA00031787

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

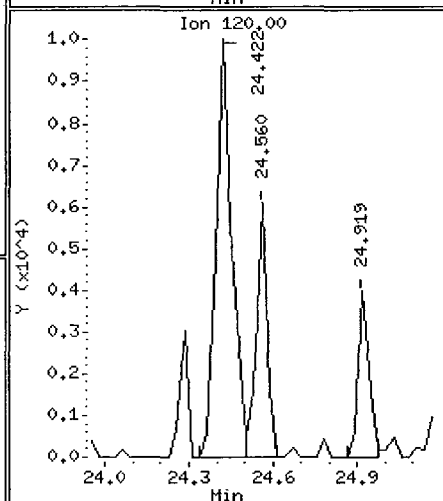
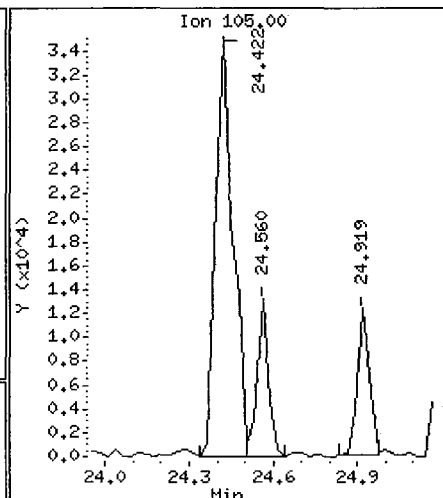
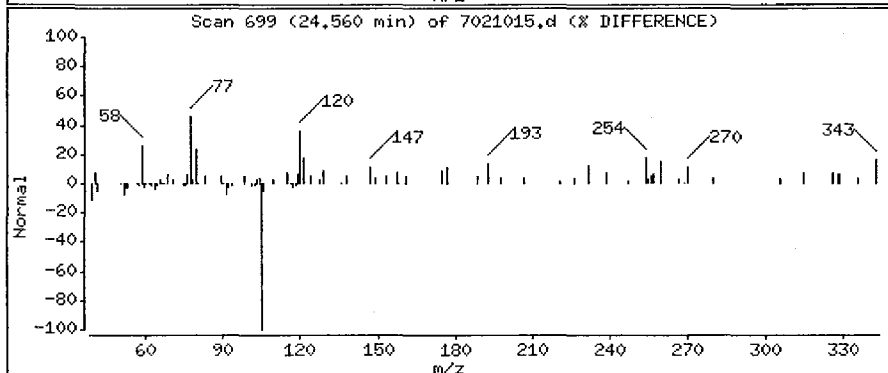
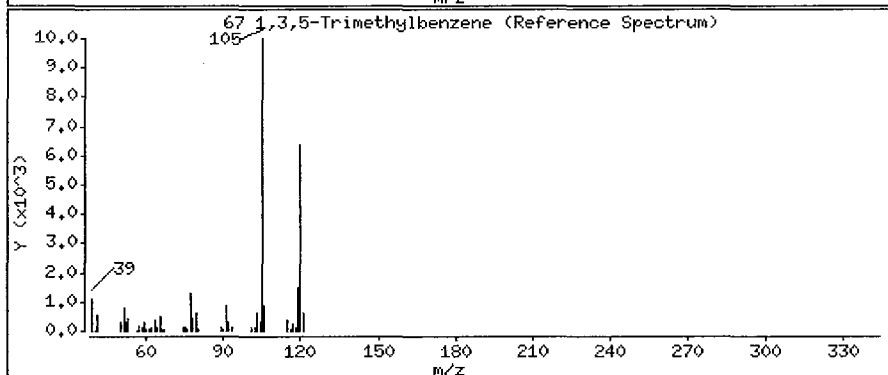
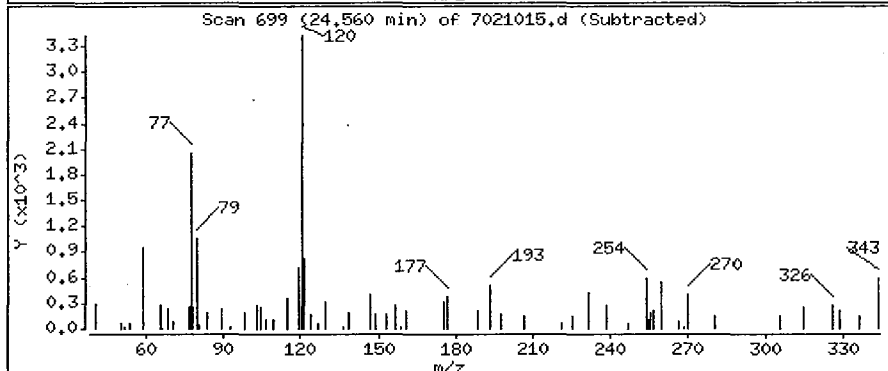
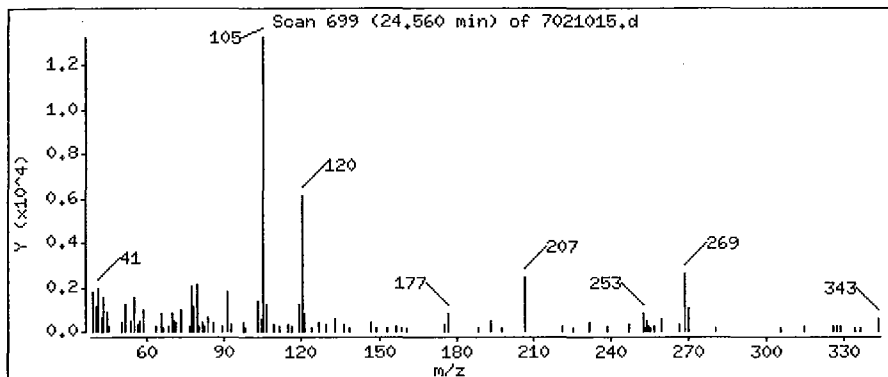
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2373 PPBV



0116

SCOEPAA00031788

Date : 10-FEB-2005 19:29

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#34415

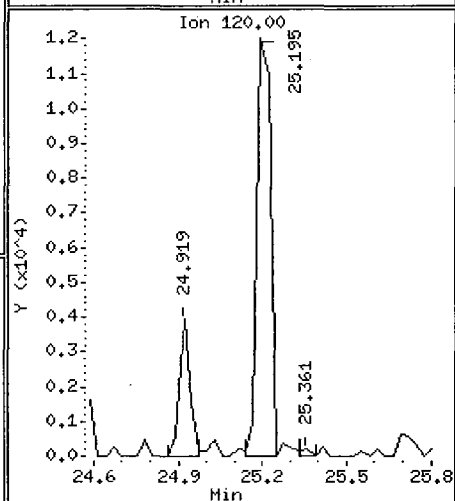
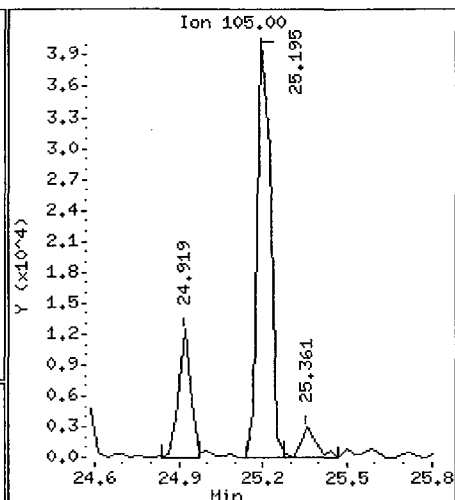
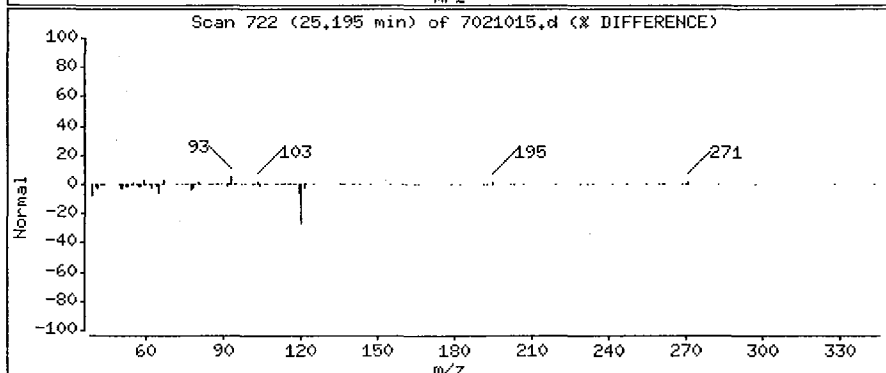
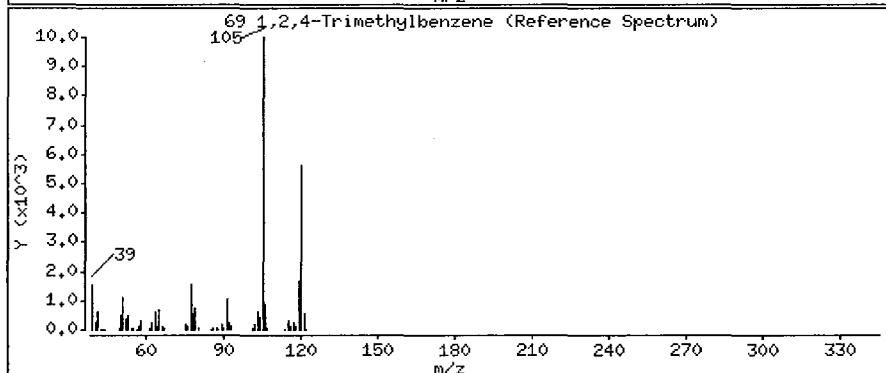
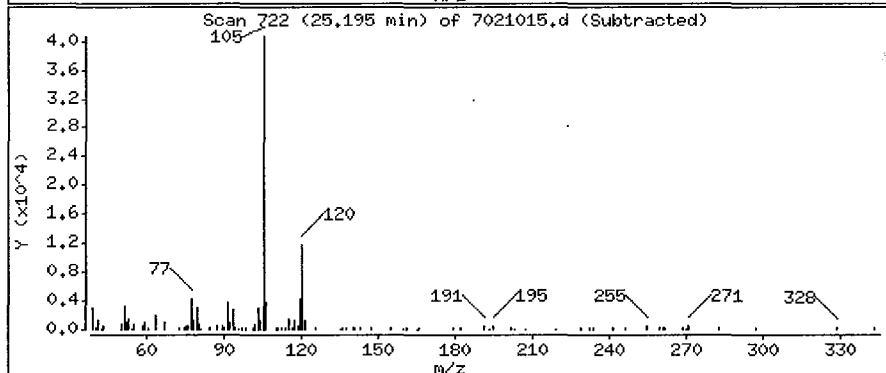
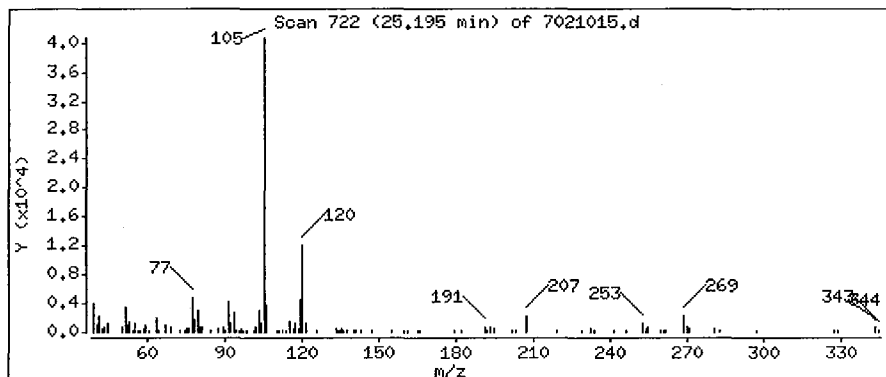
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.8435 PPBV



0117

SCOEPAA00031789

AIR TOXICS LTD.

SAMPLE NAME: #4, Fab 2, SubFab, Chem Prep

ID#: 0502032-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021019	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/10/05 10:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.65	0.84	3.2
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.56	0.35	1.2
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.41	0.96	2.3
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.10 J	1.1	0.65 J
Benzene	0.17	0.63	0.55	2.0
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	0.16 J	0.92	0.85 J
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	2.2	0.64	8.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.27	0.74	1.2
m,p-Xylene	0.17	0.94	0.74	4.1
o-Xylene	0.17	0.38	0.74	1.7
Styrene	0.17	0.062 J	0.73	0.27 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.14 J	0.84	0.67 J
1,2,4-Trimethylbenzene	0.17	0.52	0.84	2.6
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.43	1.2	1.5
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	3.9	2.0	9.3
Carbon Disulfide	0.86	0.082 J	2.7	0.26 J

AIR TOXICS LTD.

SAMPLE NAME: #4, Fab 2, SubFab, Chem Prep

ID#: 0502032-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021019	Date of Collection:	1/25/06
Dil. Factor:	1.71	Date of Analysis:	2/10/05 10:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	210 E	2.1	520 E
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.68 J	2.5	2.0 J
Hexane	0.86	0.48 J	3.0	1.7 J
Tetrahydrofuran	0.86	0.30 J	2.5	0.90 J
Cyclohexane	0.86	0.14 J	2.9	0.49 J
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	0.14 J	3.5	0.56 J
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.50 J	4.2	2.4 J
Ethanol	0.86	5.5	1.6	10
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.27 J	3.5	1.1 J
Cumene	0.86	0.083 J	4.2	0.41 J
Propylbenzene	0.86	0.13 J	4.2	0.62 J
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021019.d
 Lab Smp Id: 0502032-04A
 Inj Date : 10-FEB-2005 22:32
 Operator : nk Inst ID: msd7.i
 Smp Info : 500ml can#10987
 Misc Info : 6.5"Hg-5psi Clayton
 Comment :
 Method : /chem/msd7.i/7-10feb.b/t14lJ27b.m
 Meth Date : 10-Feb-2005 19:17 nkhan Quant Type: ISTD
 Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
 Als bottle: 1
 Dil Factor: 1.71000
 Integrator: HP RTE Compound Sublist: ATmdl.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	{1.000}	130	433455	10.0000		80.00- 120.00	100.00
16.331	16.331	{1.000}	128	323544			26.96- 126.96	74.64
16.331	16.331	{1.000}	49	760193			126.50- 226.50	175.38

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	{1.000}	114	1913530	10.0000		80.00- 120.00	100.00
17.794	17.794	{1.000}	88	324689			0.00- 67.73	16.97

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	{1.000}	117	1373914	10.0000		80.00- 120.00	100.00
22.130	22.130	{1.000}	82	833917			9.26- 109.26	60.70

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
17.214	17.214	{1.054}	65	900355	10.0852	10.085	80.00- 120.00	100.00
17.214	17.214	{1.054}	67	403769			0.17- 100.17	44.85

\$ 45 Toluene-d8						CAS #: 2037-26-5		
19.893	19.893	{1.118}	98	1596426	9.77893	9.779	80.00- 120.00	100.00
19.893	19.893	{1.118}	70	193163			0.00- 61.87	12.10

0120

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1157719			21.49- 121.49	72.52

\$ 63 Bromofluorobenzene								
						CAS #: 460-00-4		
23.952	23.953	(1.082)	174	769920	10.8478	10.848	80.00- 120.00	100.00
23.952	23.953	(1.082)	95	1184448			102.12- 202.12	153.84
23.952	23.953	(1.082)	176	750867			47.05- 147.05	97.53

1 Dichlorodifluoromethane/Fr12								
						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	132922	0.37832	0.6469	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	40937			0.00- 82.65	30.80

4 Chloromethane								
						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	33043	0.32621	0.5578	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	10439			0.00- 84.65	31.59

10 Trichlorofluoromethane/Fr11								
						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	73329	0.24002	0.4104	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	51528			14.29- 114.29	70.27

12 Ethanol								
						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	137921	3.21634	5.500	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	34823			0.00- 76.71	25.25
12.050	12.050	(0.738)	46	55264			0.00- 90.17	40.07

16 Acetone								
						CAS #: 67-64-1		
12.824	12.824	(0.785)	43	521340	2.28255	3.903	80.00- 120.00	100.00
12.824	12.824	(0.785)	58	137110			0.00- 78.78	26.30

18 2-Propanol								
						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	26725705	123.796	211.69	80.00- 120.00	100.00(A)
13.238	13.238	(0.811)	43	5101693			0.00- 69.75	19.09
13.238	13.238	(0.811)	59	954591			0.00- 53.72	3.57

17 Carbon Disulfide								
						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	13604	0.04796	0.08200	80.00- 120.00	100.00(a)

20 Methylene Chloride								
						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	22970	0.25413	0.4346	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	34178			96.36- 196.36	148.79
13.735	13.735	(0.841)	51	14359			0.00- 93.42	62.51

24 Hexane								
						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	48352	0.28231	0.4827	80.00- 120.00	100.00(a)
14.563	14.563	(0.892)	43	43190			15.23- 115.23	89.32
14.563	14.563	(0.892)	86	8505			0.00- 65.23	17.59

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL		TARGET RANGE	RATIO	
					(PPBV)	(PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
28 2-Butanone									
					CAS #: 78-93-3				
15.972	15.972	(0.978)	72	18796	0.39712	0.6791	80.00- 120.00	100.00(a)	
15.972	15.972	(0.978)	43	123893			1029.22-1129.22	659.15	
15.972	15.972	(0.978)	57	9759			0.00- 89.21	51.92	

23 Tetrahydrofuran									
					CAS #: 109-99-9				
16.331	16.331	(1.000)	42	23477	0.17875	0.3056	80.00- 120.00	100.00(a)	
16.331	16.331	(1.000)	71	7336			0.00- 84.14	31.25	
16.331	16.331	(1.000)	72	6751			0.00- 86.54	28.76	

31 Cyclohexane									
					CAS #: 110-82-7				
16.662	16.662	(1.020)	84	7871	0.08311	0.1421	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	30042			93.37- 193.37	381.68	
16.662	16.662	(1.020)	41	18394			30.80- 130.80	233.69	

33 Carbon Tetrachloride									
					CAS #: 56-23-5				
16.855	16.883	(1.032)	119	9375	0.06023	0.1030	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	9171			61.49- 161.49	97.82	

35 Benzene									
					CAS #: 71-43-2				
17.214	17.214	(0.967)	78	103086	0.37120	0.6348	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	21302			0.00- 72.07	20.66	

37 Heptane									
					CAS #: 142-82-5				
17.435	17.435	(0.980)	43	25594	0.15784	0.2699	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	12946			1.42- 101.42	50.58	
17.463	17.435	(0.981)	100	6004			0.00- 66.93	23.46	

39 Trichloroethene									
					CAS #: 79-01-6				
18.153	18.153	(1.020)	130	9007	0.09235	0.1579	80.00- 120.00	100.00(a)	
18.153	18.153	(1.020)	95	6497			66.40- 166.40	72.13	
18.153	18.153	(1.020)	97	4886			23.45- 123.45	54.25	

44 4-Methyl-2-pentanone									
					CAS #: 108-10-1				
19.727	19.727	(1.109)	43	14332	0.07990	0.1366	80.00- 120.00	100.00(a)	
19.727	19.727	(1.109)	58	8340			0.00- 87.49	58.19	
19.727	19.727	(1.109)	85	1322			0.00- 66.91	9.22	

46 Toluene									
					CAS #: 108-88-3				
20.003	20.004	(1.124)	91	410033	1.28878	2.204	80.00- 120.00	100.00	
20.003	20.004	(1.124)	92	249214			12.22- 112.22	60.78	

56 Ethyl Benzene									
					CAS #: 100-41-4				
22.268	22.268	(1.006)	106	17738	0.15725	0.2689	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	58152			294.68- 394.68	327.84	

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	75700	0.54869	0.9382	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	166896			168.06- 268.06	220.47	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	25143	0.22378	0.3827	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	53920			189.62- 289.62	214.45	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	6353	0.03653	0.06246	80.00- 120.00	100.00(a)	
23.096	23.096	(1.044)	78	7862			7.14- 107.14	123.75	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	13189	0.04835	0.08268	80.00- 120.00	100.00(a)	
23.621	23.621	(1.067)	120	2661			0.00- 72.05	20.18	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	27792	0.07405	0.1266	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	5247			0.00- 69.13	18.88	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	87166	0.29117	0.4979	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	22221			0.00- 75.29	25.49	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	21287	0.08015	0.1370	80.00- 120.00	100.00(a)	
24.560	24.560	(1.110)	120	8094			0.00- 89.72	38.02	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	77670	0.30569	0.5227	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	28518			0.00- 87.12	36.72	

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7021019.d
Lab Smp Id: 0502032-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk

Calibration Date: 10-FEB-2005
Calibration Time: 00:57

Level: LOW
Sample Type: AIR

Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi Clayton

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	433455	-6.78
38 1,4-Difluorobenze	2172345	1303407	3041283	1913530	-11.91
54 Chlorobenzene-d5	1516792	910075	2123509	1373914	-9.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-10feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-04A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi Clayton

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.085	100.85	70-130
\$ 45 Toluene-d8	10.000	9.779	97.79	70-130
\$ 63 Bromofluorobenzene	10.000	10.848	108.48	70-130

0125

Date : 10-FEB-2005 22:32

Client ID:

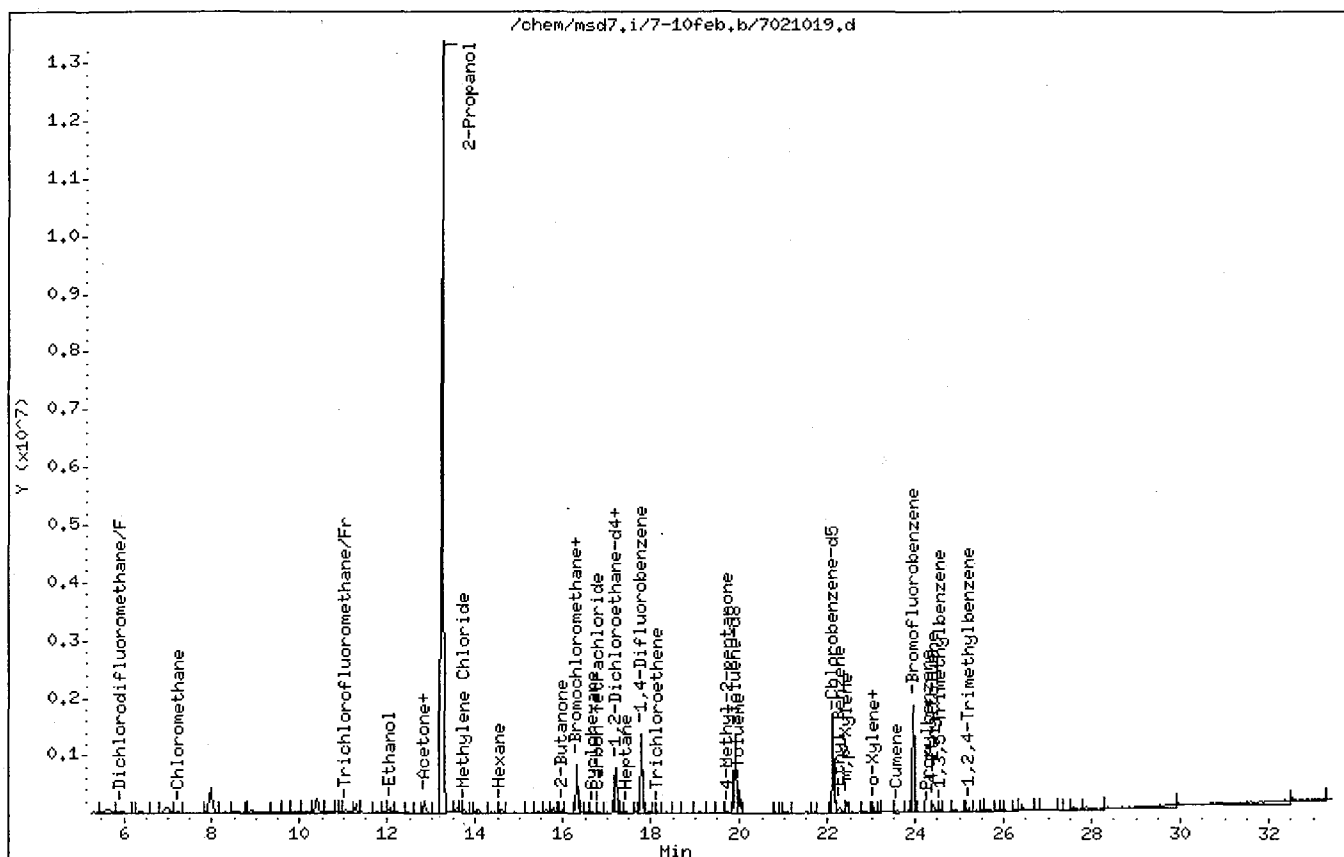
Instrument: msd7.i

Sample Info: 500ml can#10987

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

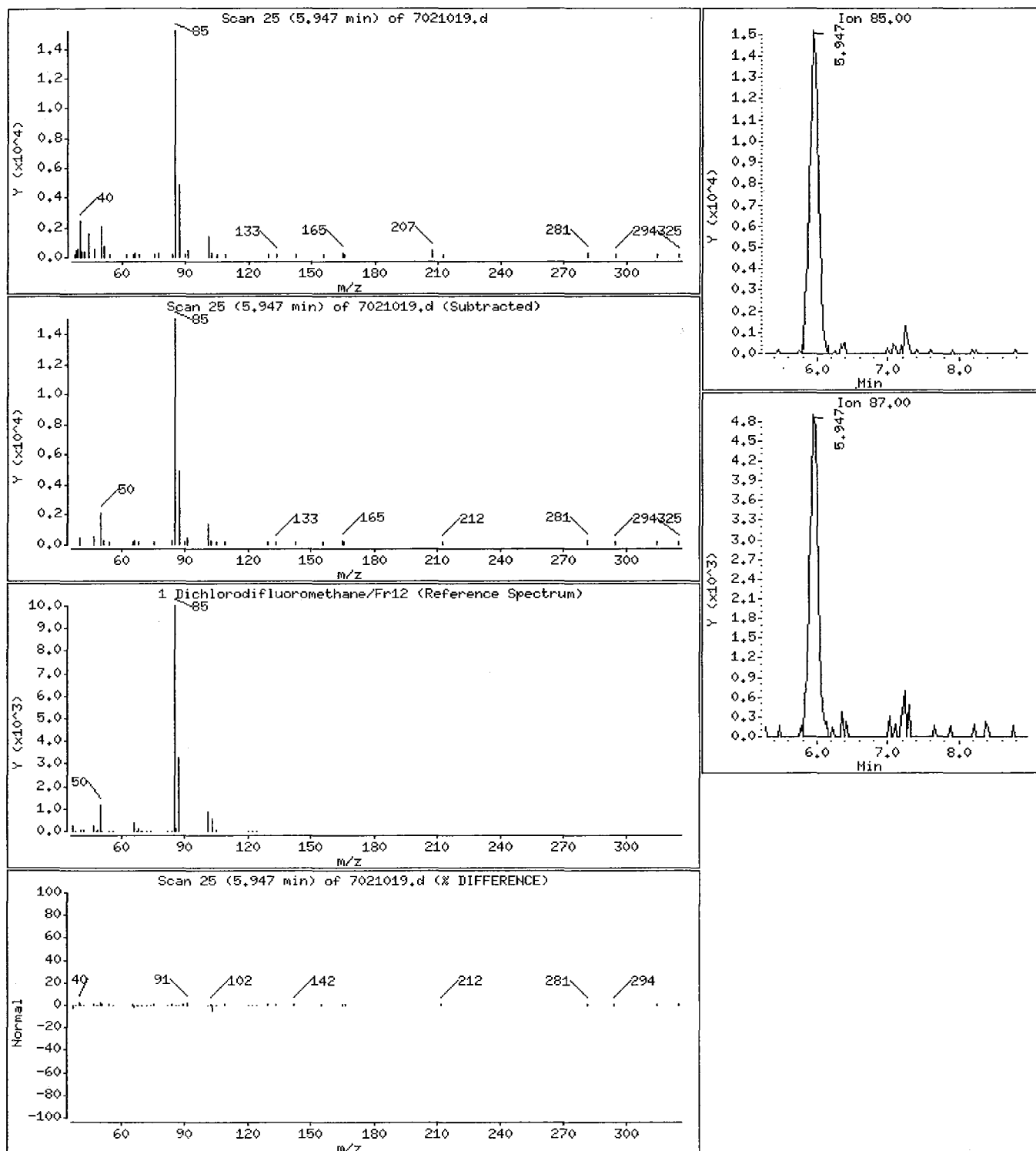
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.6469 PPBV



0127

SCOEP00031799

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

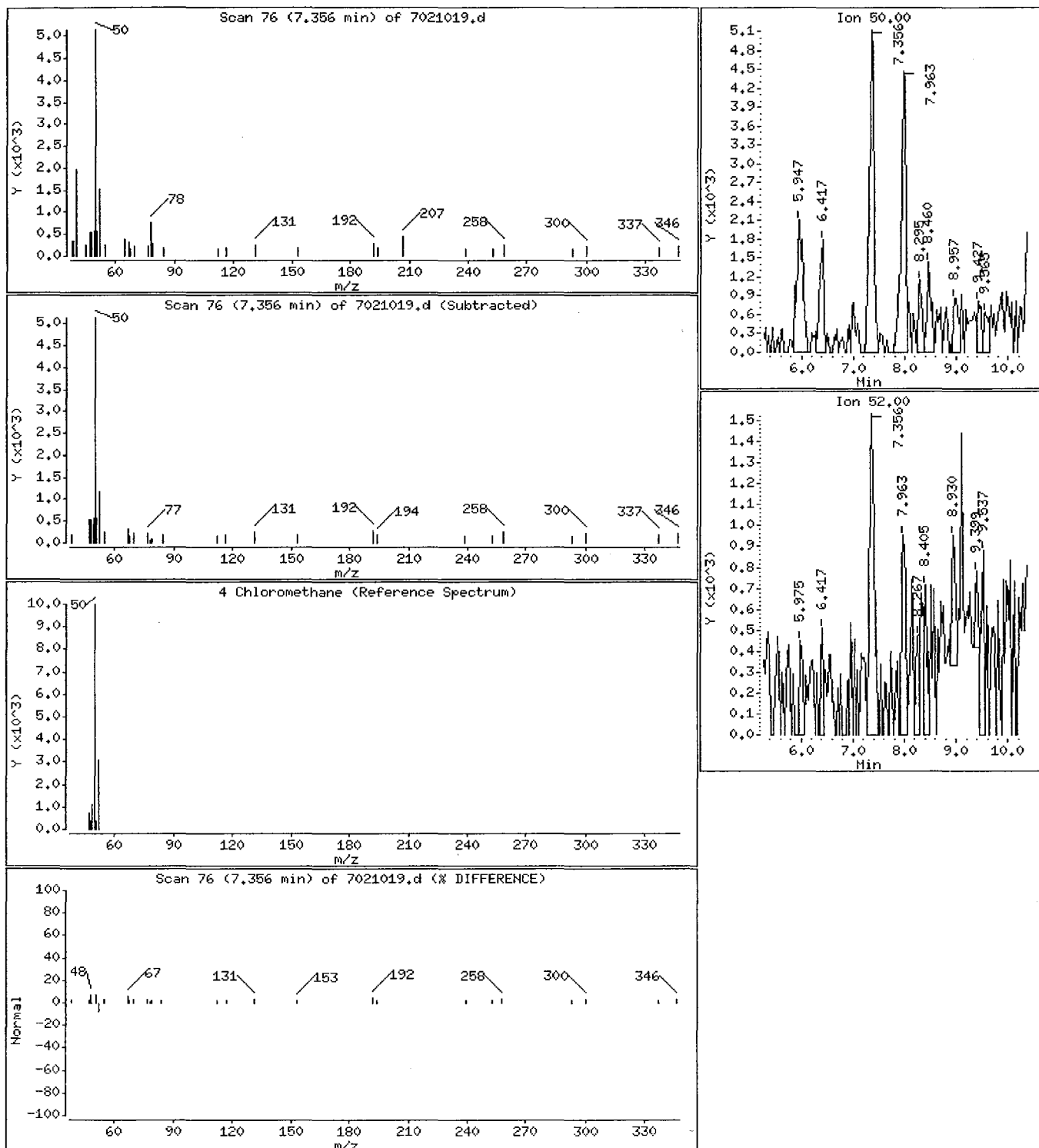
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.5578 PPBV



0128

SCOEP00031800

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 4

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

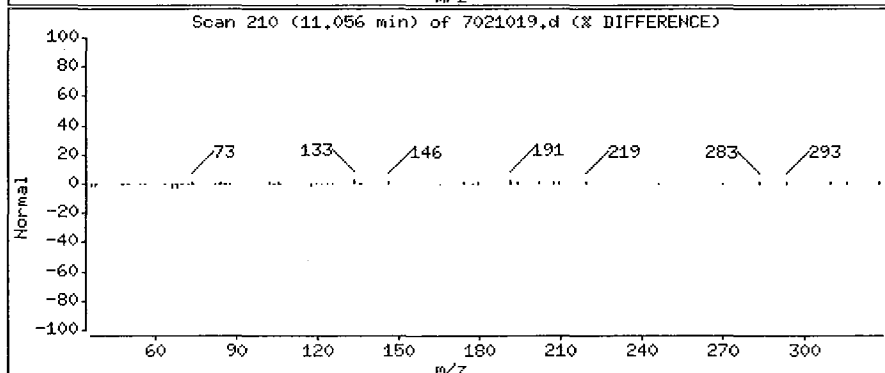
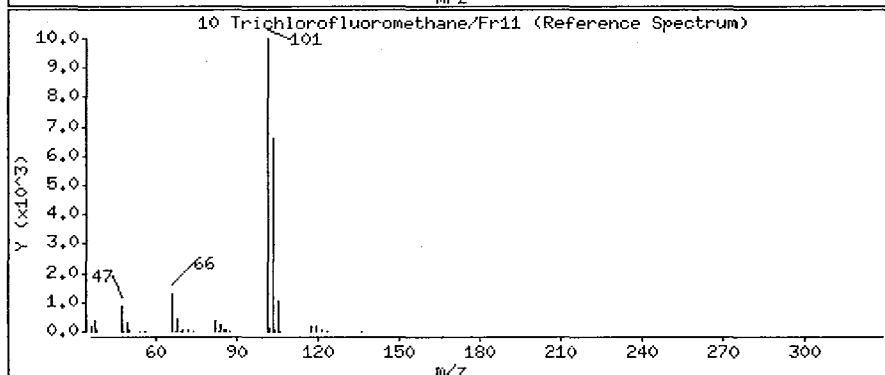
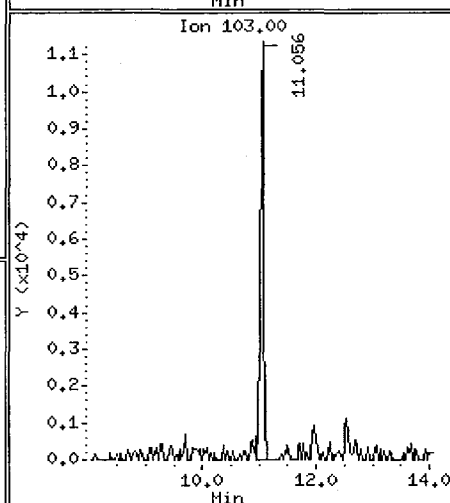
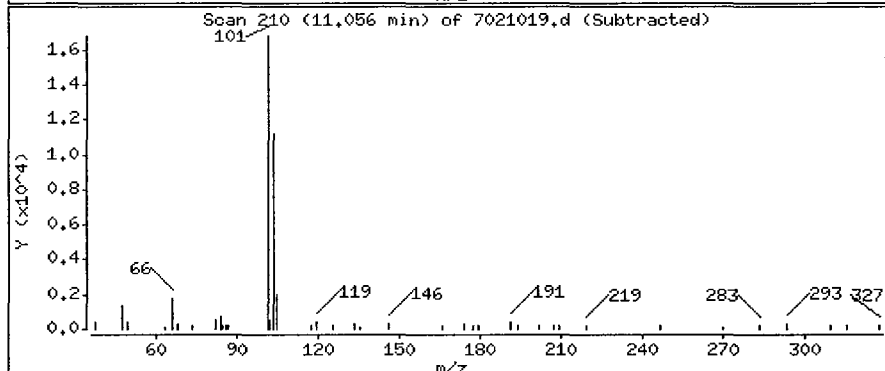
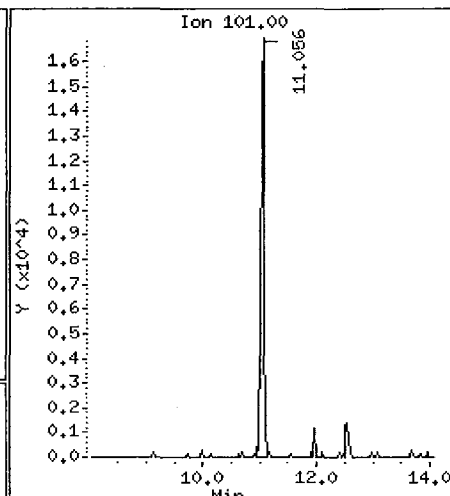
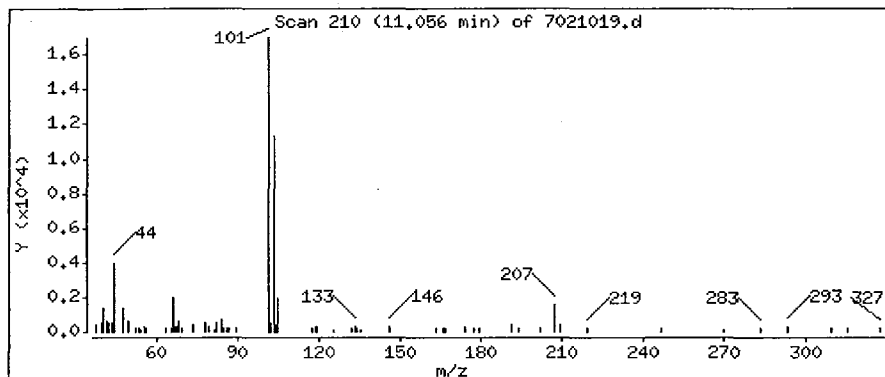
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.4104 PPBV



0129

SCOEPA00031801

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 5

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

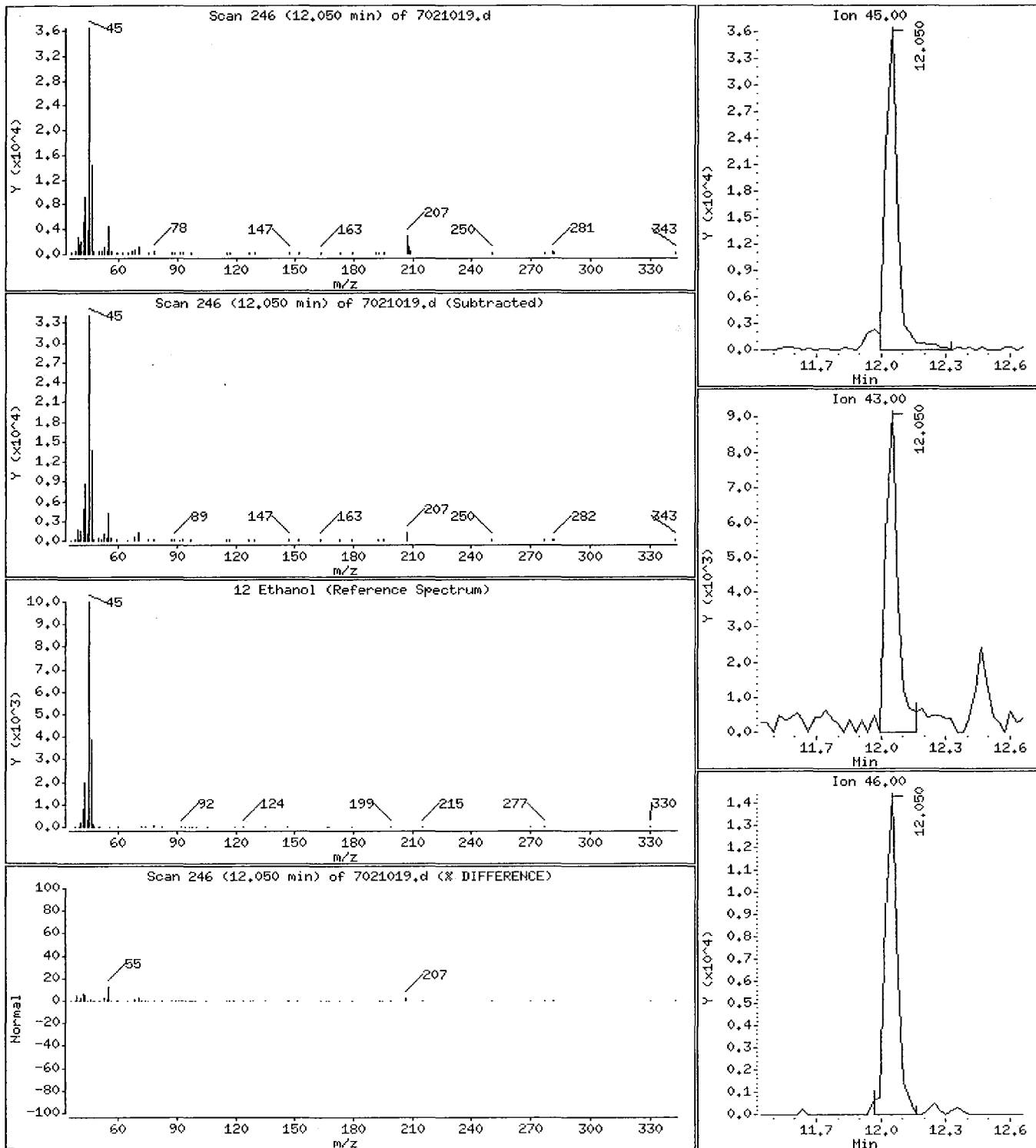
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 5,500 PPBV



0130

SCOEPAA00031802

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

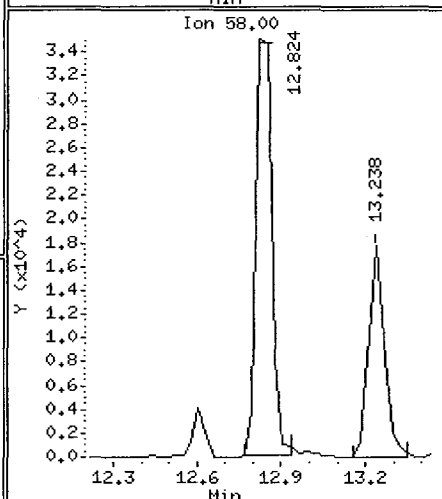
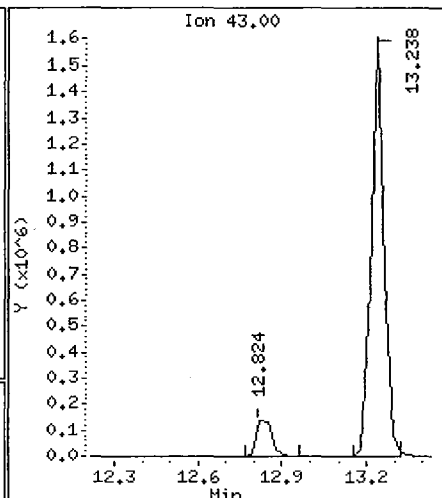
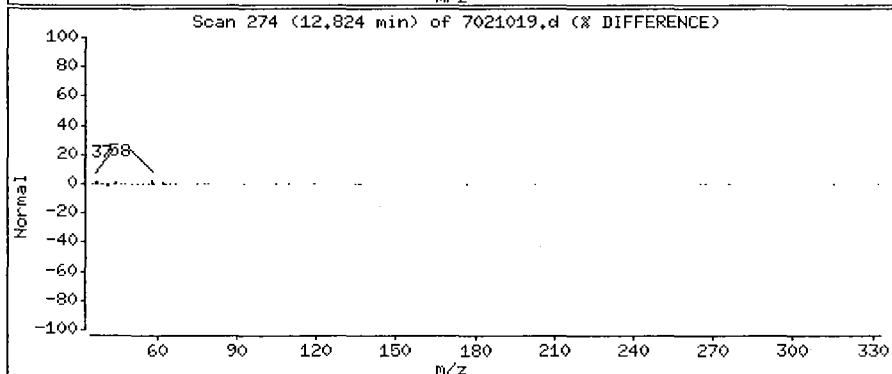
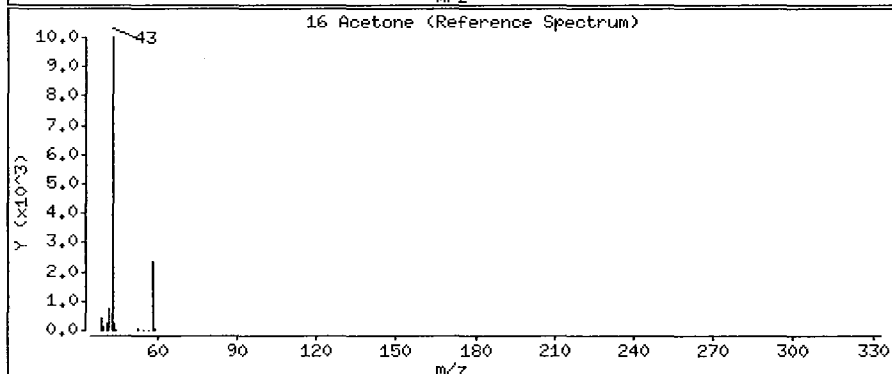
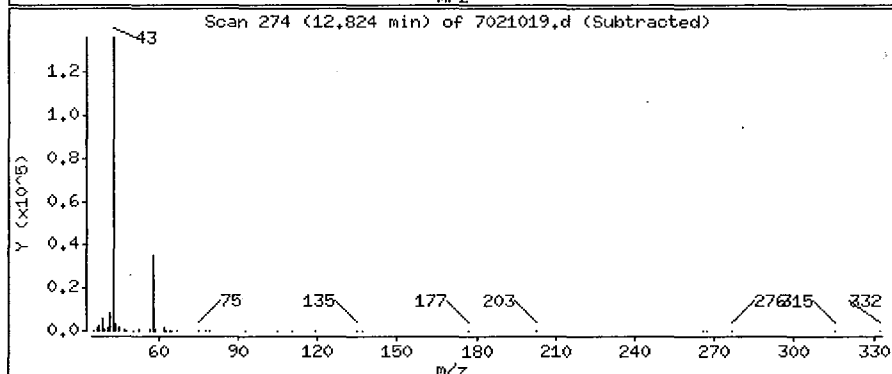
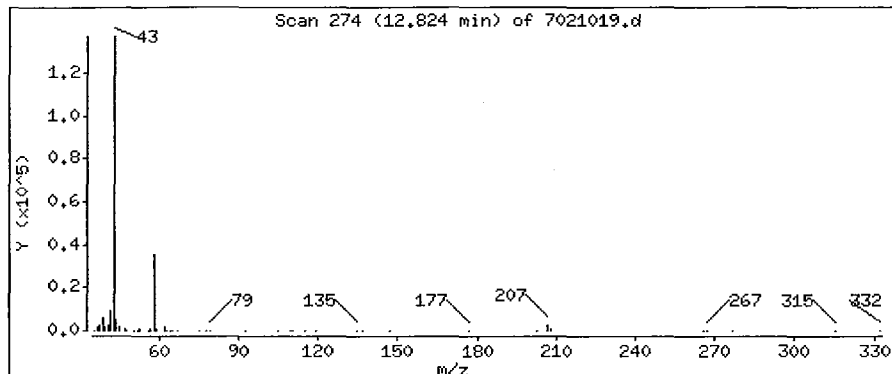
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 3.903 PPBV



0131

SCOEPAA00031803

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 7

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

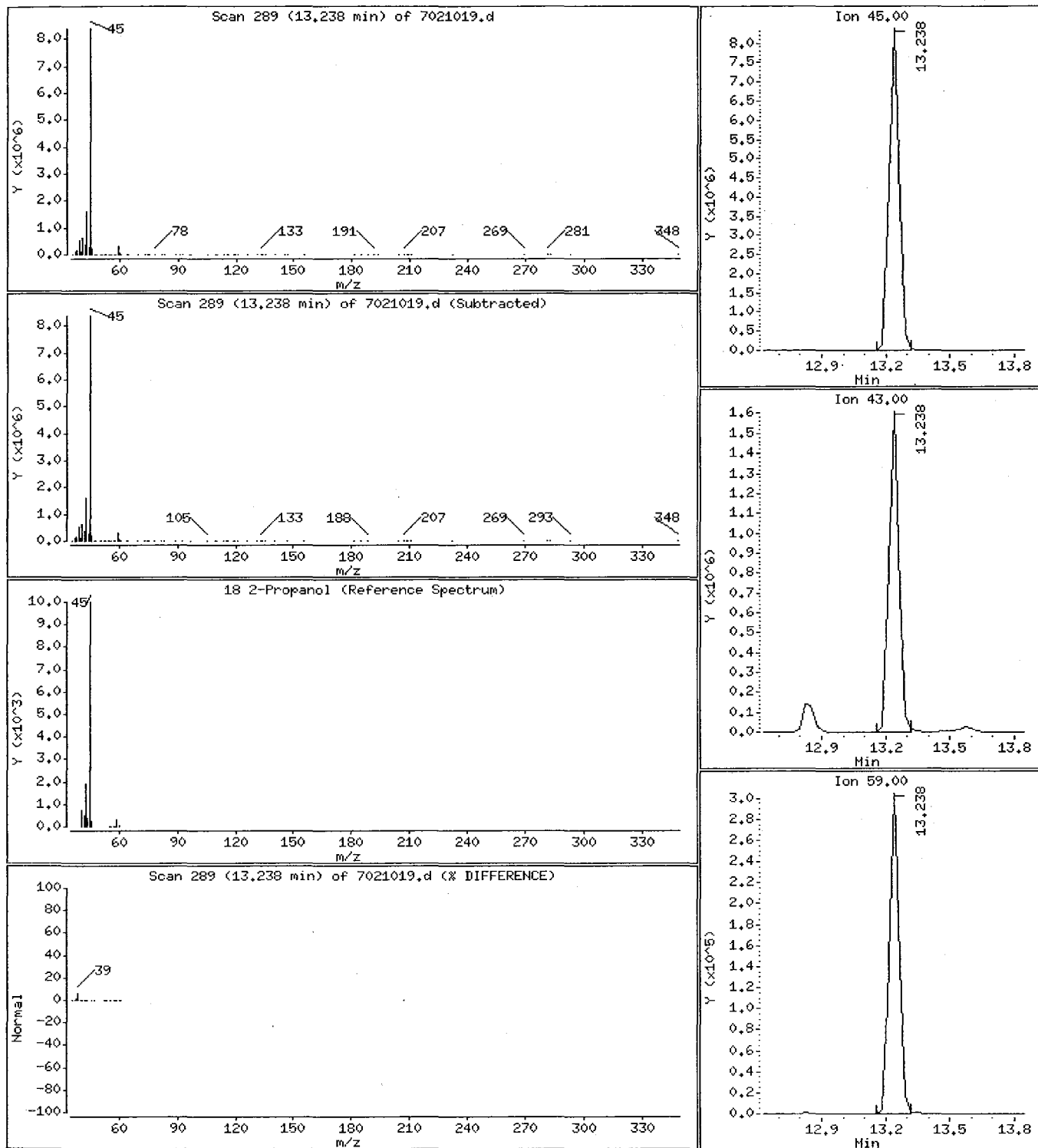
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 211.69 PPEV



0132

SCOEP00031804

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 8

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

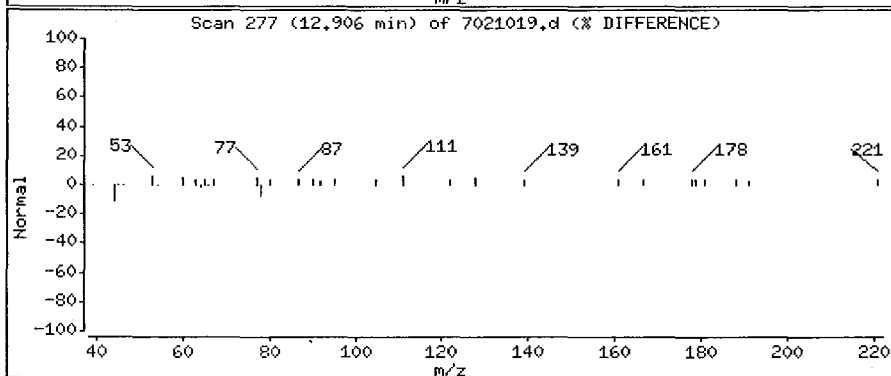
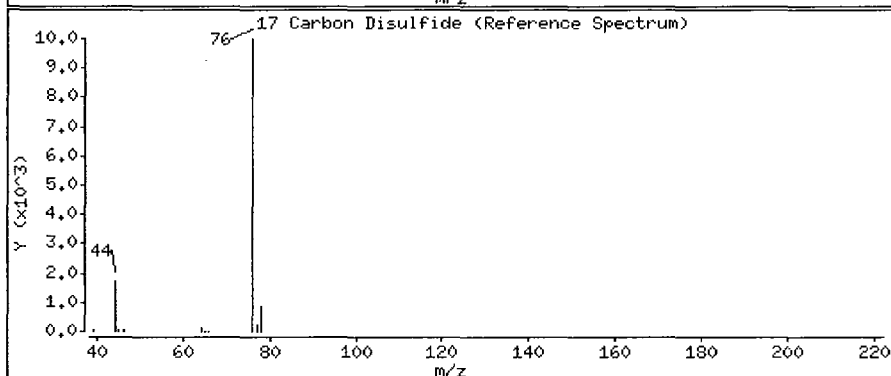
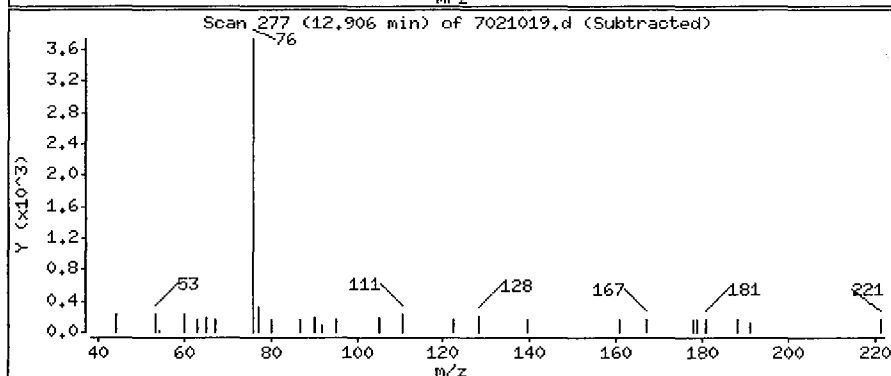
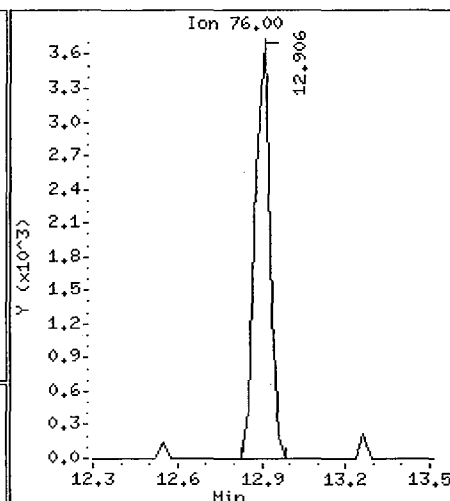
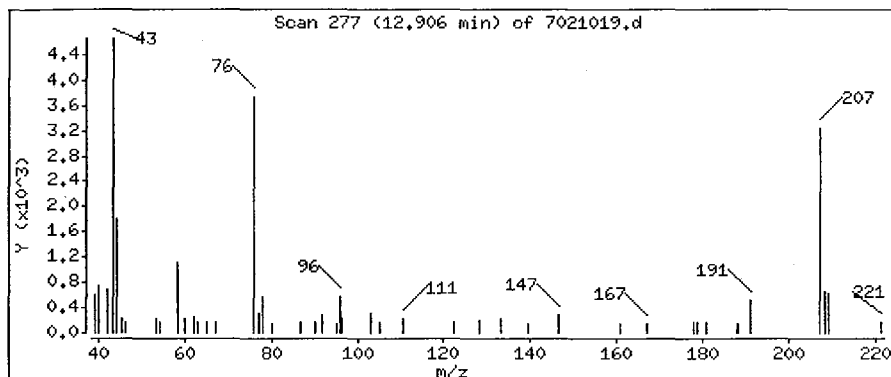
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.08200 PPBV



0133

SCOEPAA00031805

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 9

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

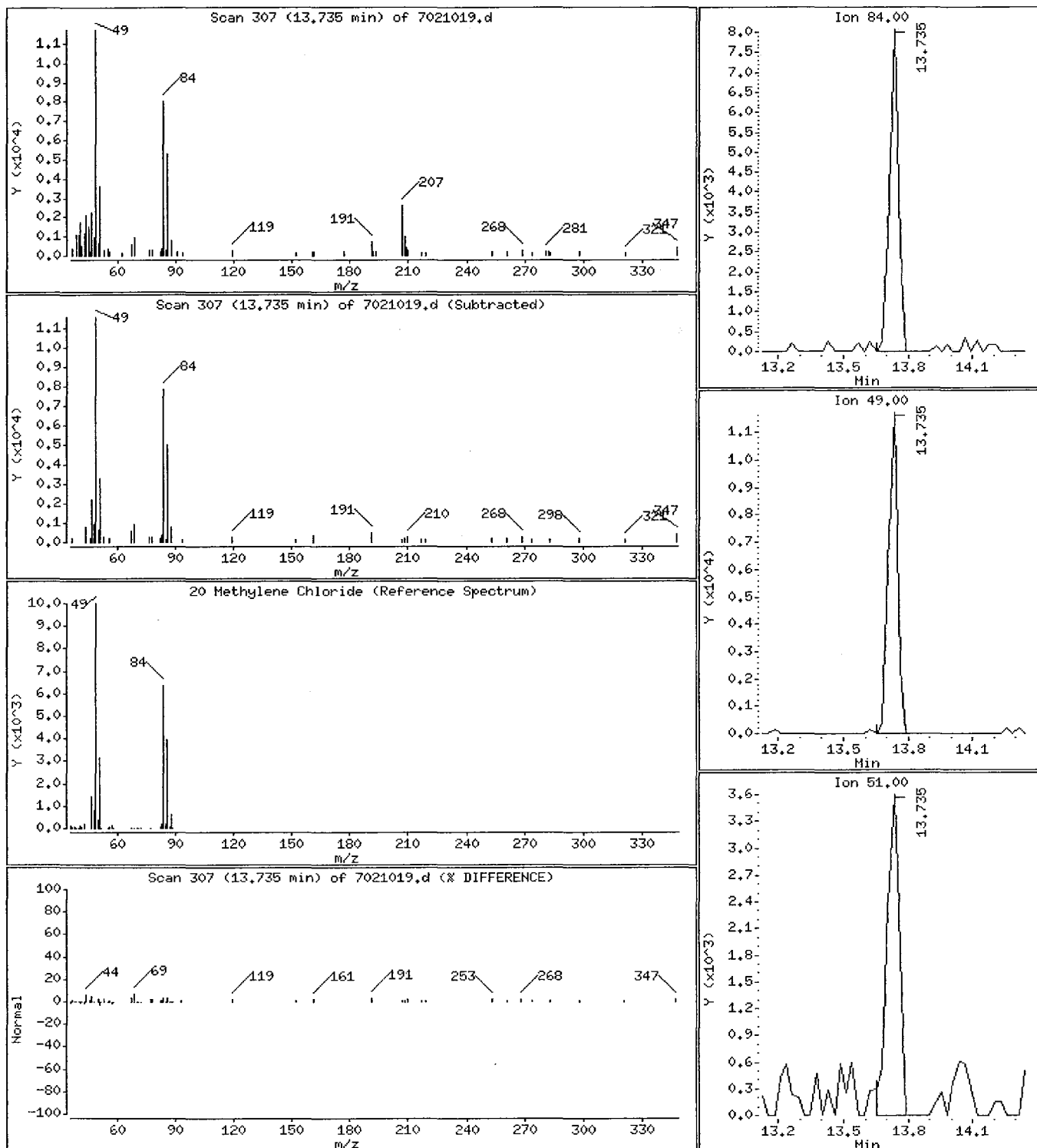
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.4346 PPBV



0134

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

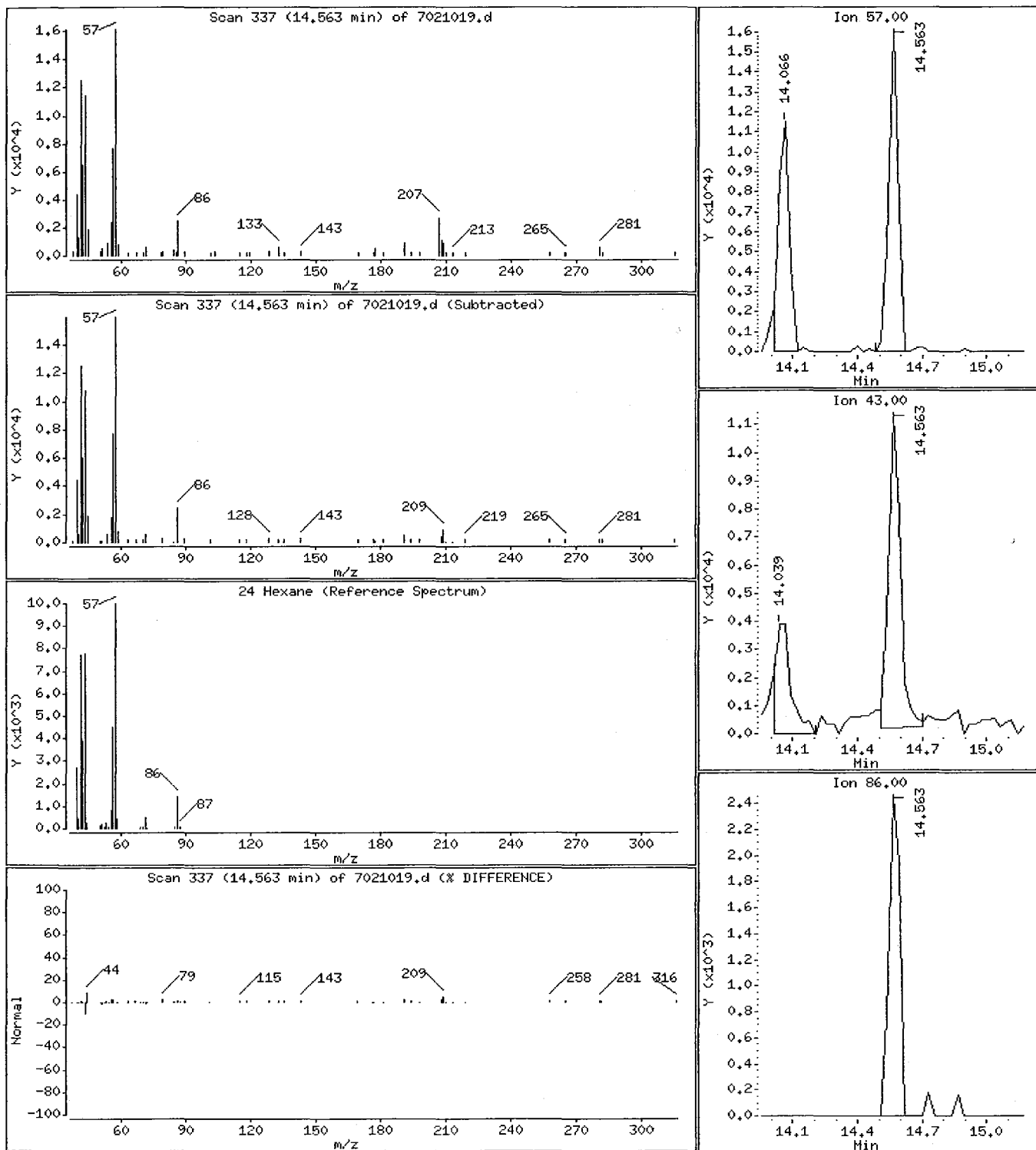
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.4827 PPBV



0135

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 11

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

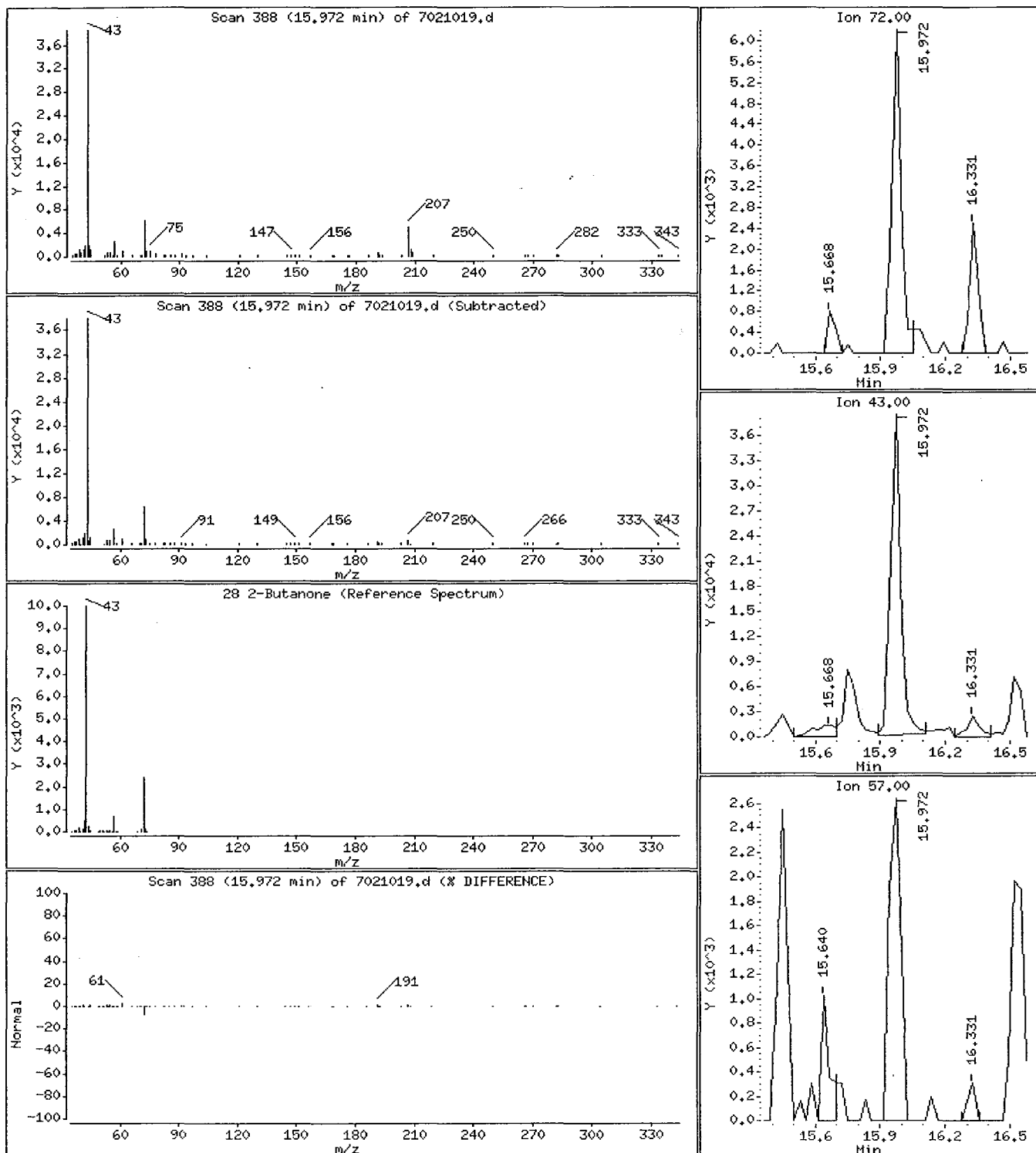
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 0.6791 PPBV



0136

SCOEPAA00031808

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

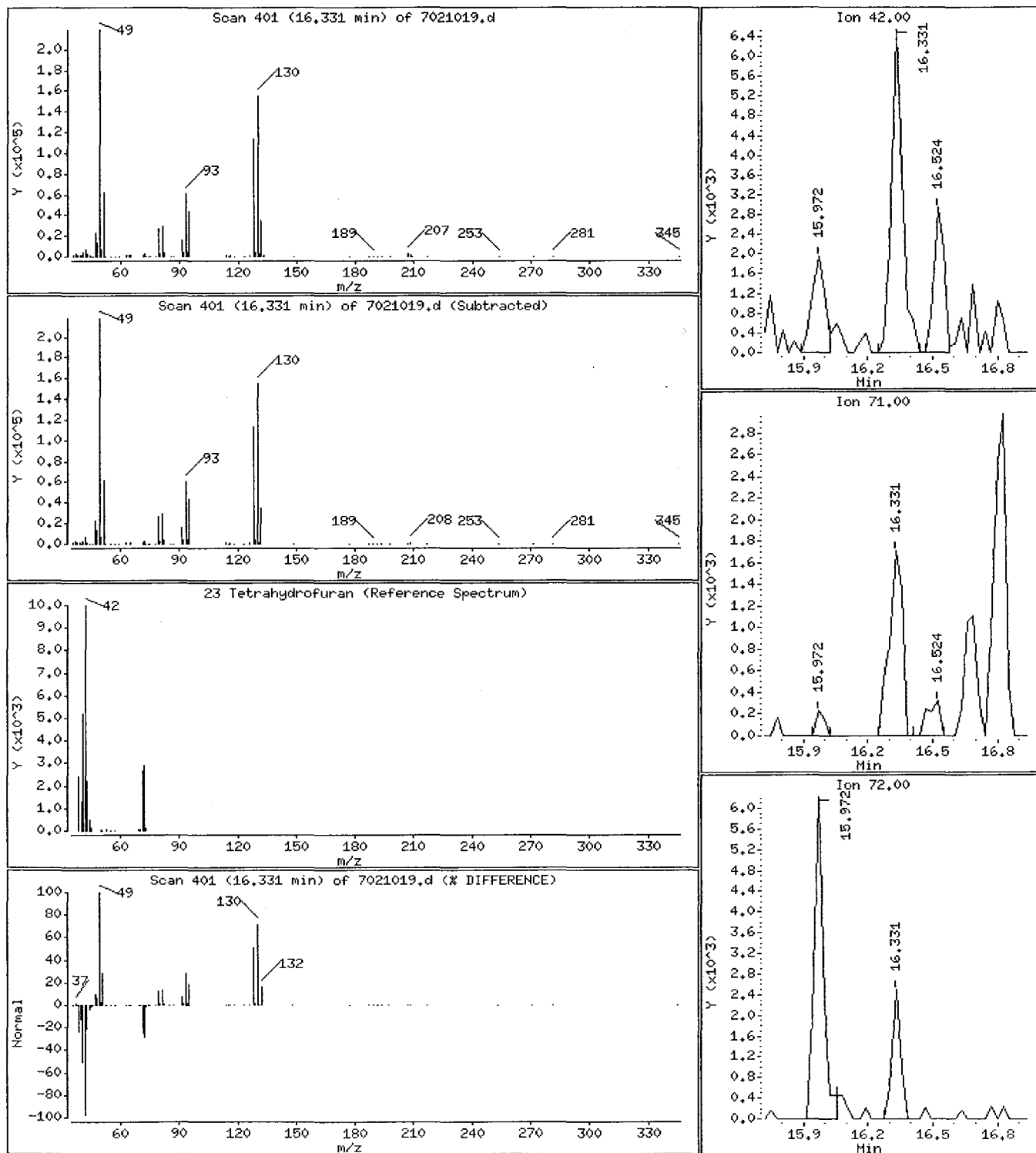
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.3056 PPBV



0137

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

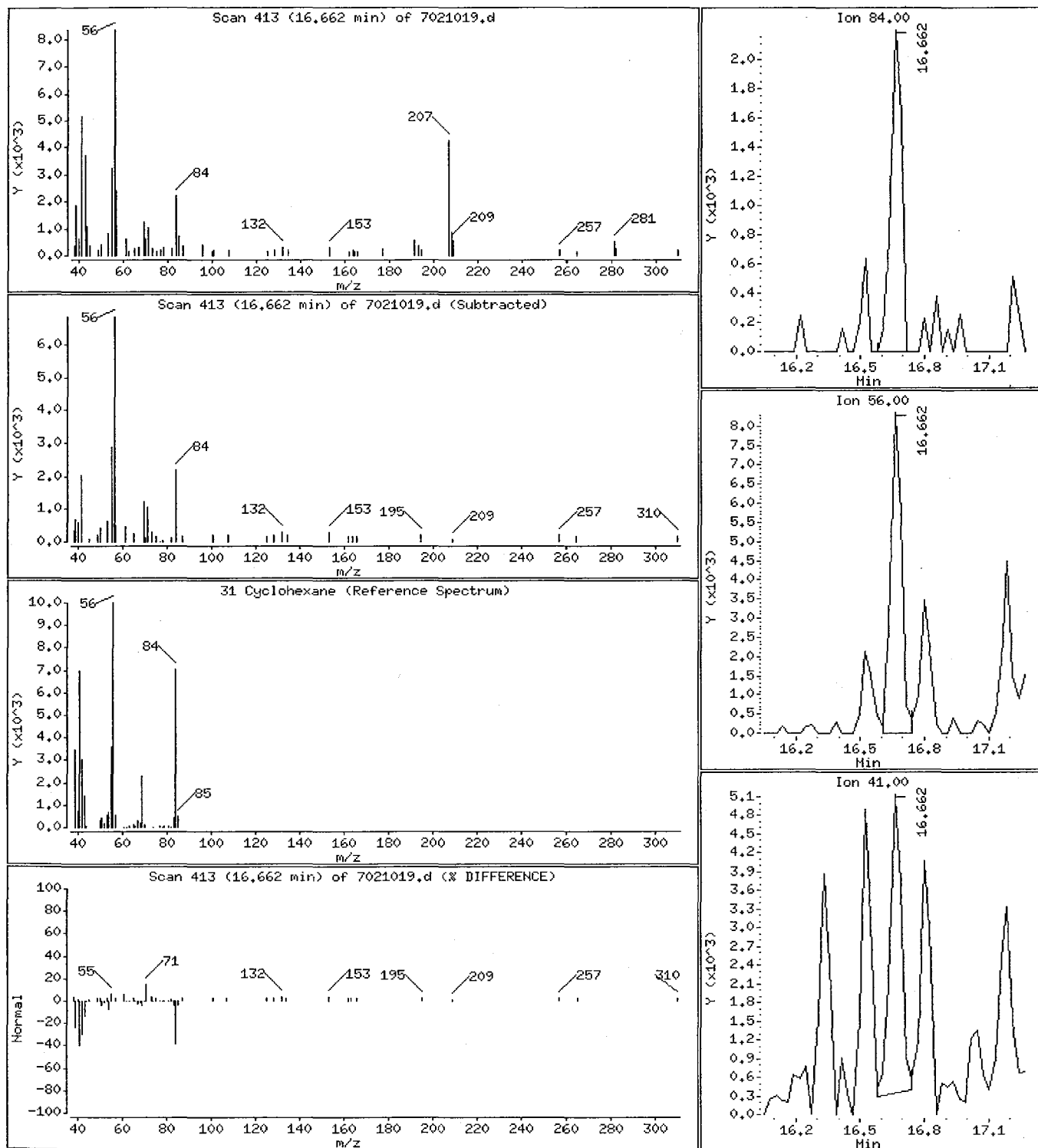
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.1421 PPBV



0138

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

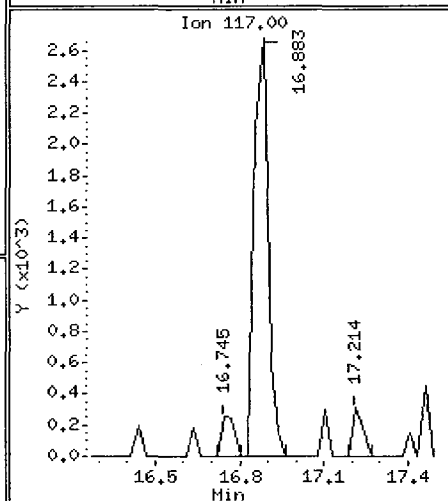
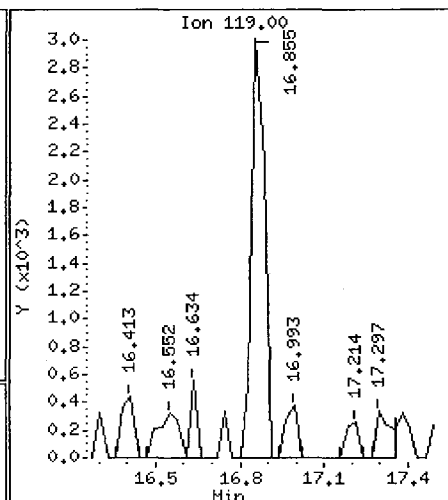
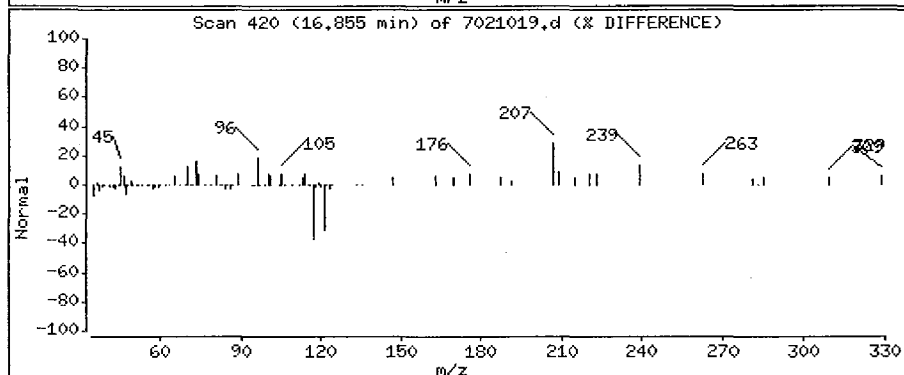
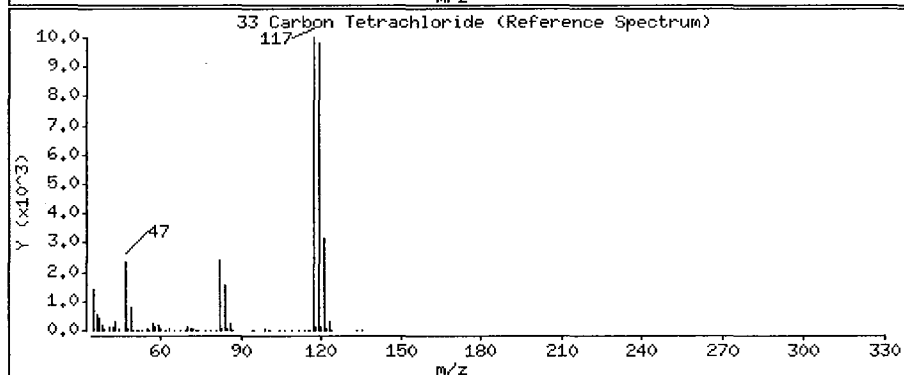
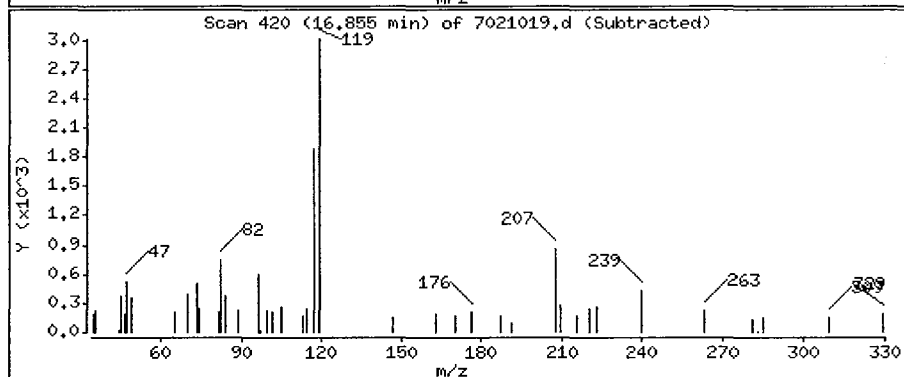
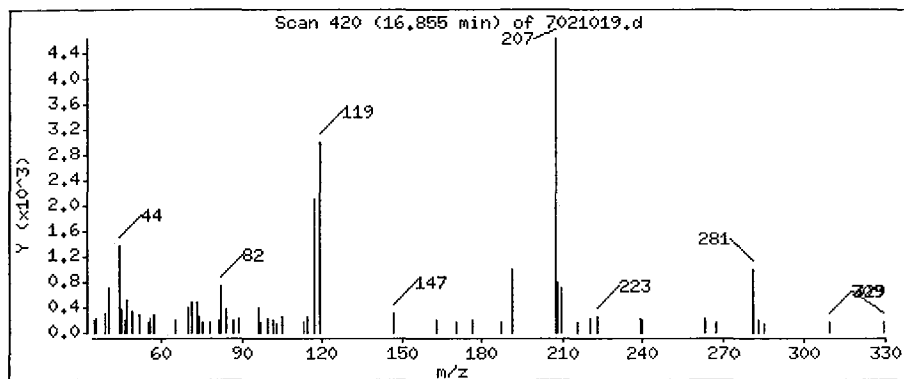
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1030 PPBV



0139

SCOEPAA00031811

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

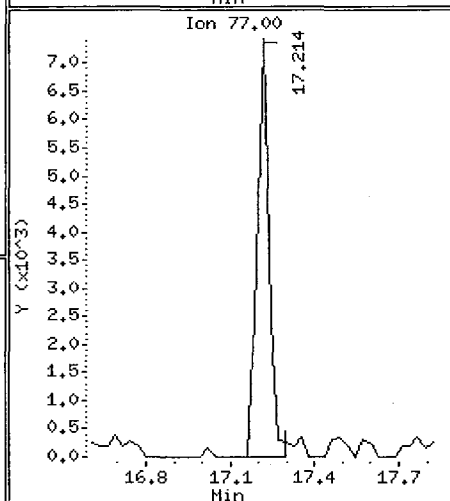
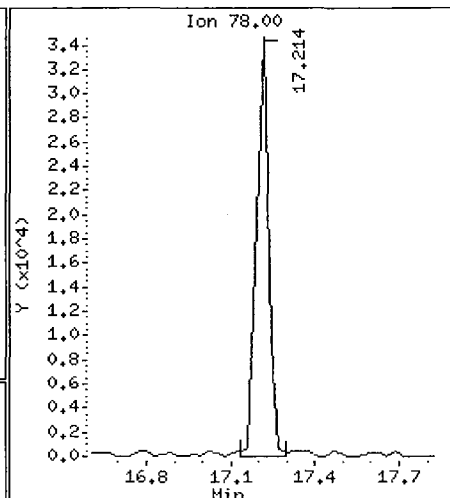
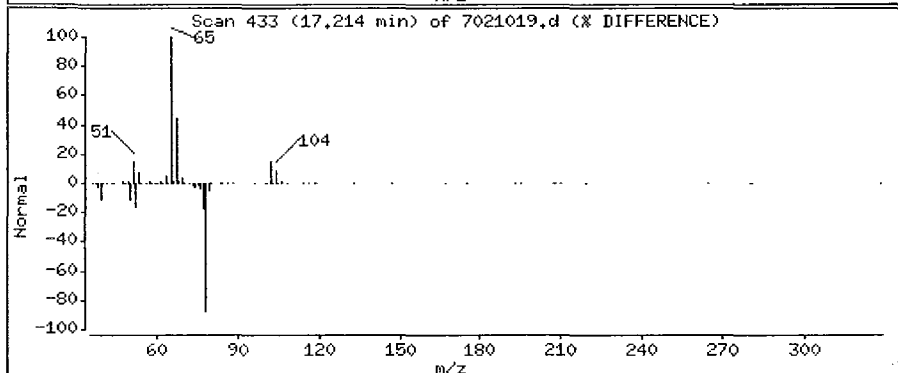
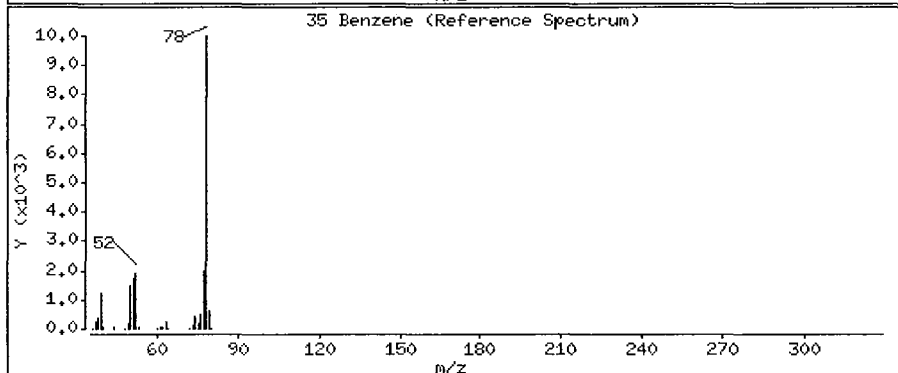
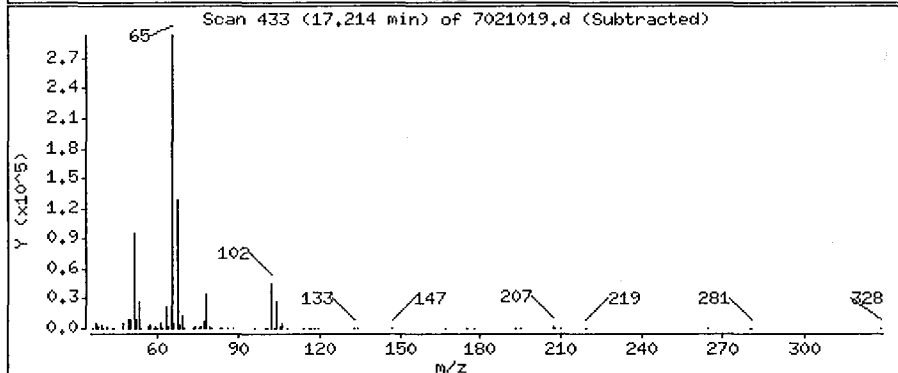
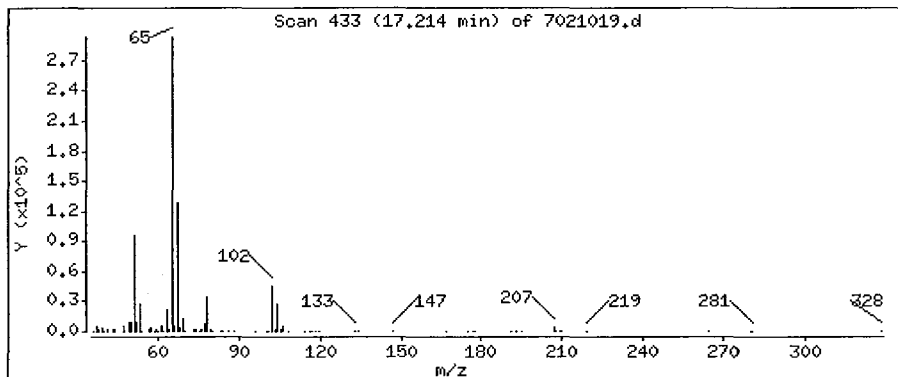
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

35 Benzene

Concentration: 0.6348 PPBV



0140

SCOEPAA00031812

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

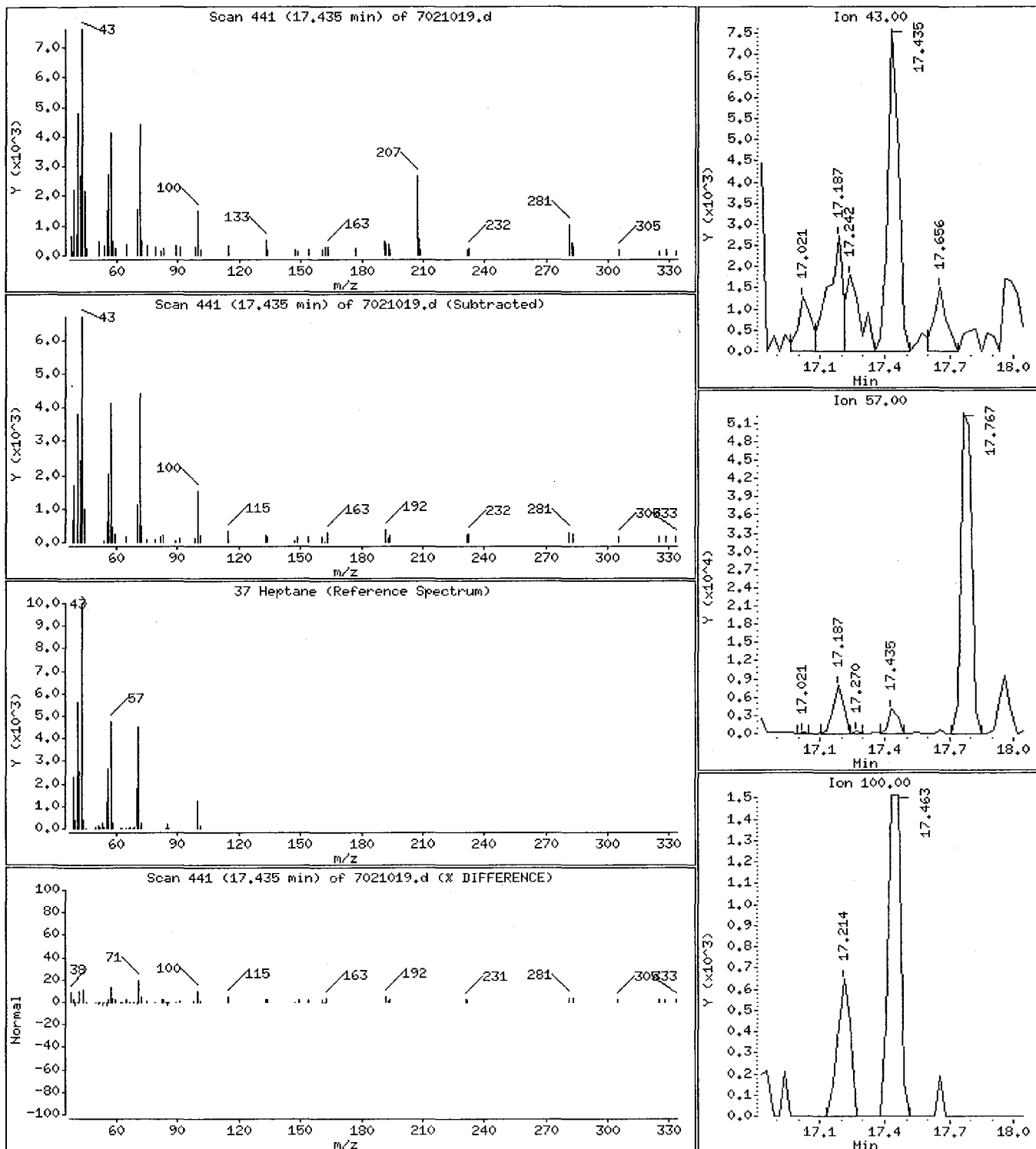
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.2699 PPBV



0141

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

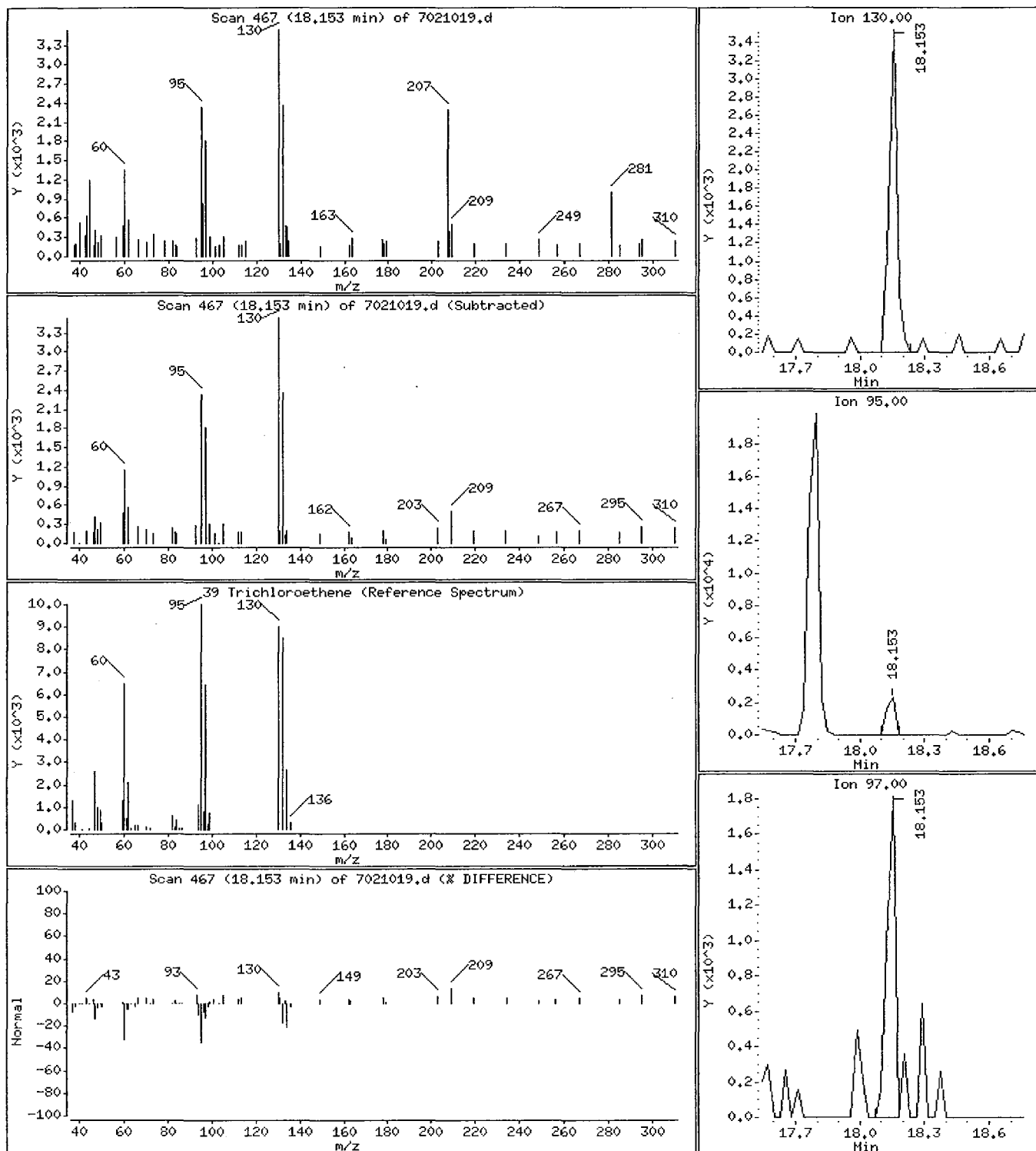
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

39 Trichloroethene

Concentration: 0.1579 PPBV



0142

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

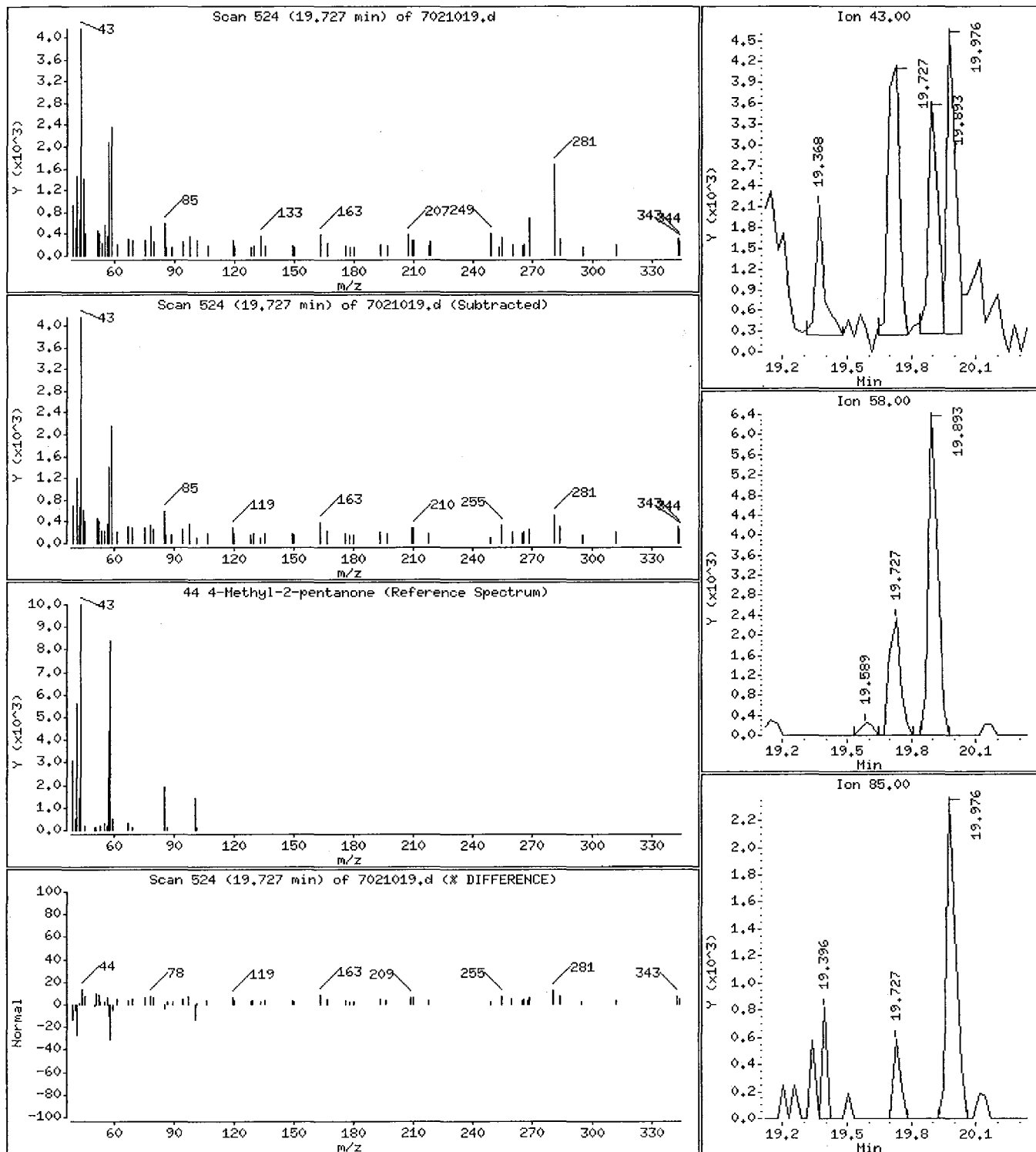
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.1366 PPBV



0143

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 19

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

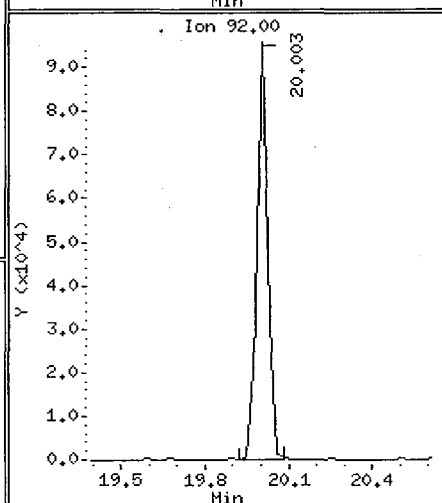
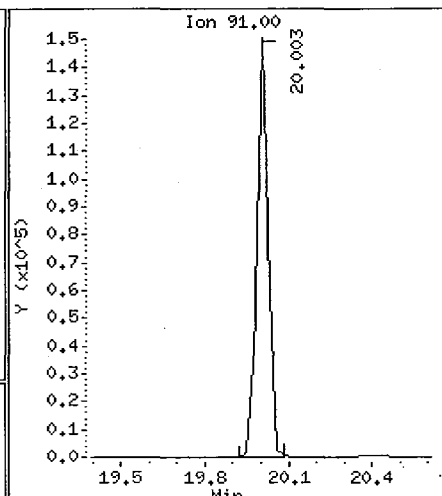
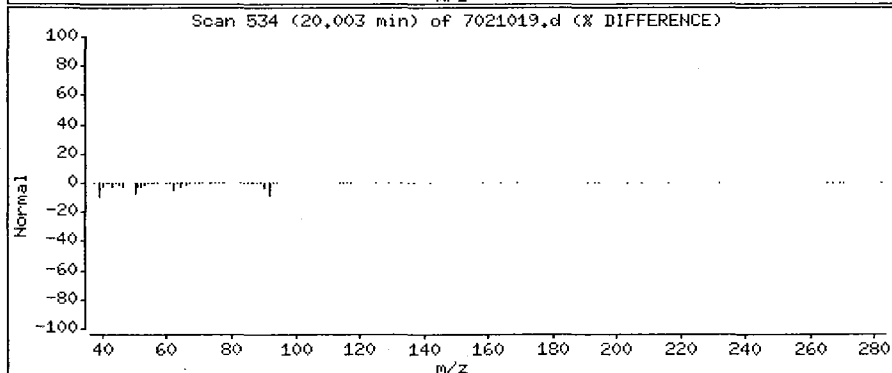
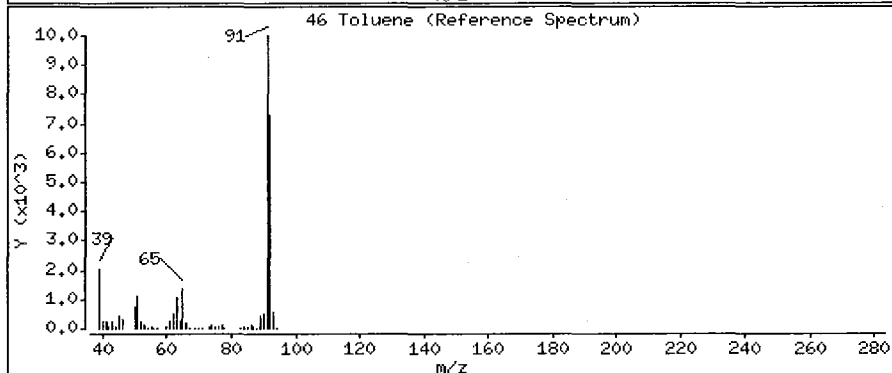
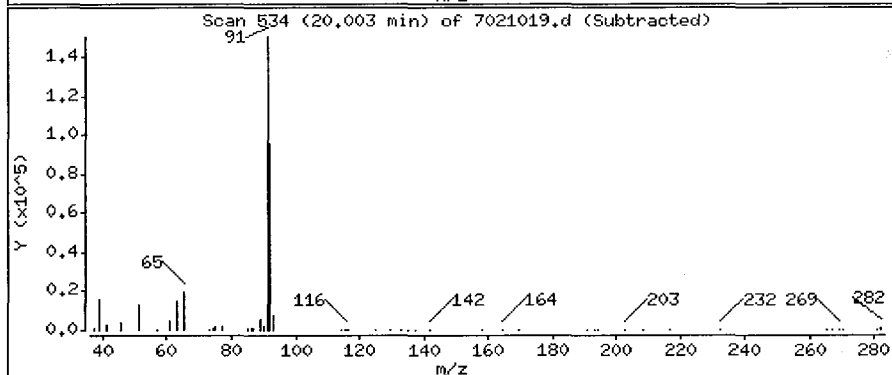
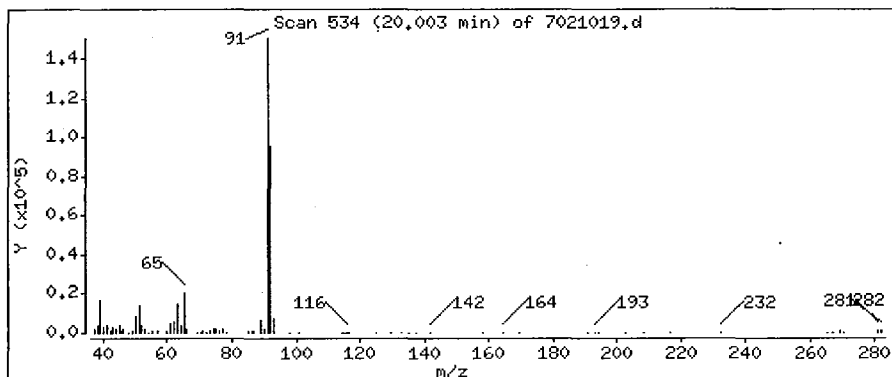
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 2.204 PPBV



0144

SCOEPAA00031816

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

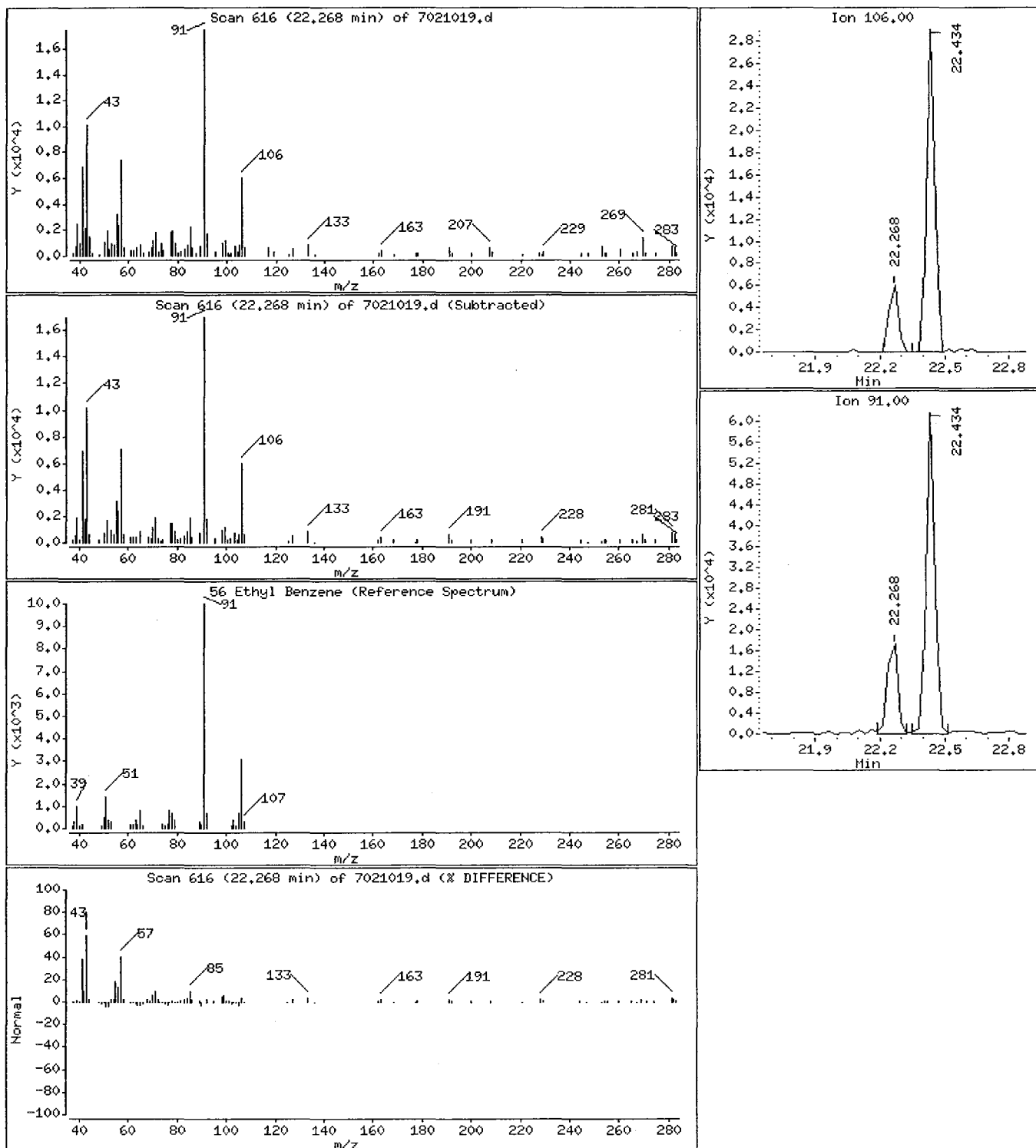
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.2689 PPBV



0145

Data File: /chem/msd7.i/7-10feb.b/7021019.d

Page 21

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

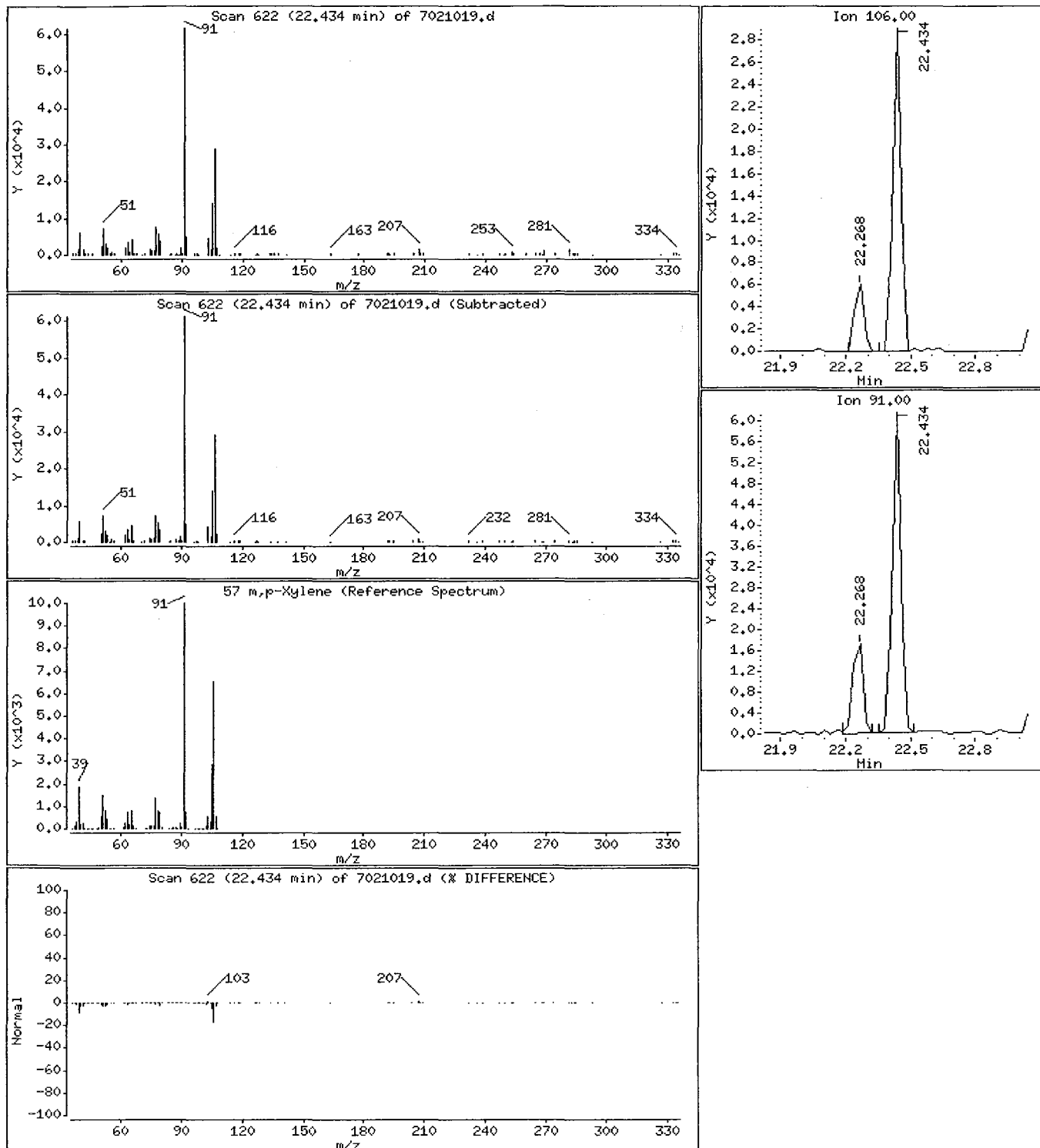
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 0.9382 PPBV



0146

SCOEPAA00031818

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

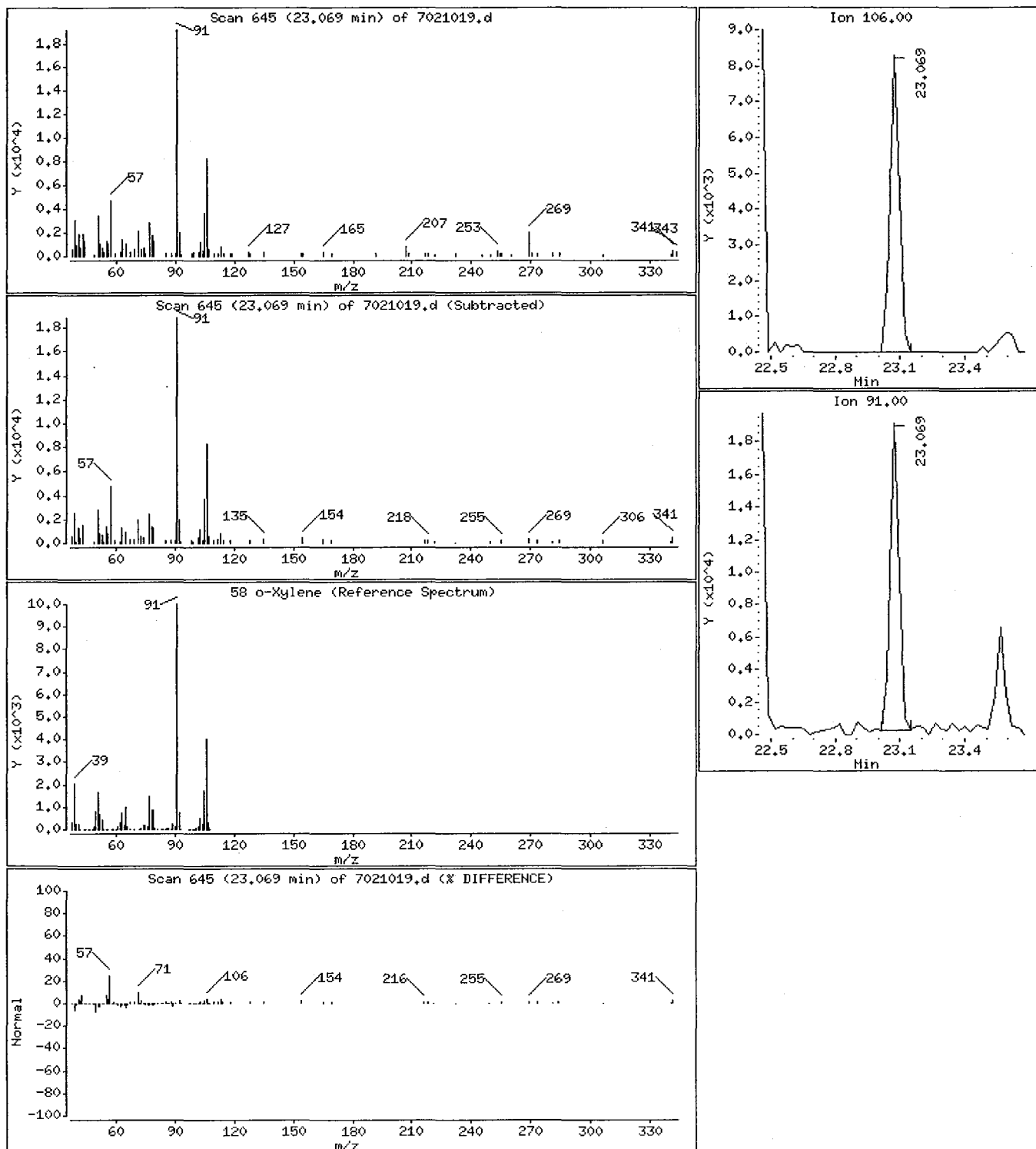
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.3827 PPBV



0147

SCOEPAA00031819

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

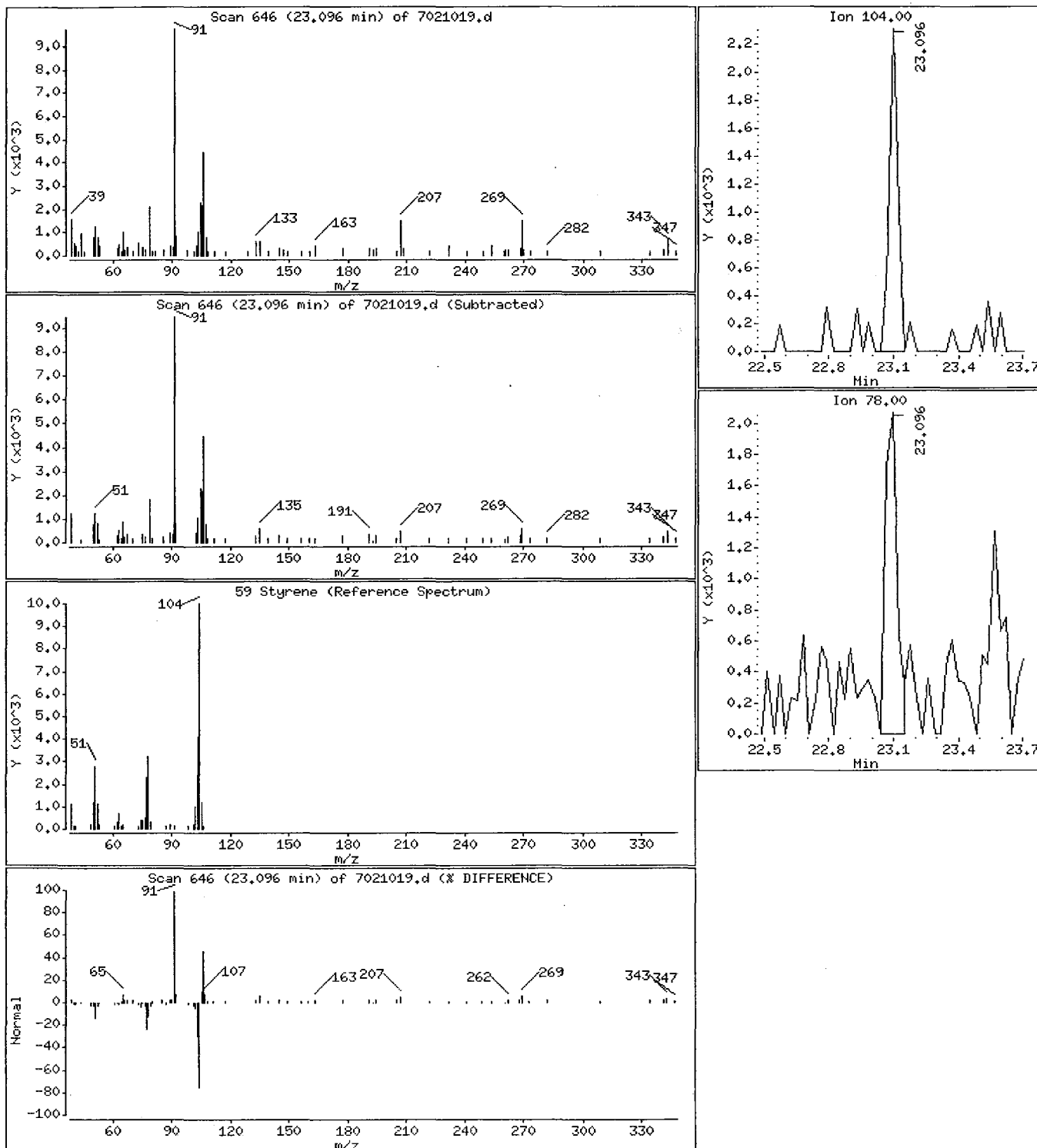
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.06246 PPBV



0148

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

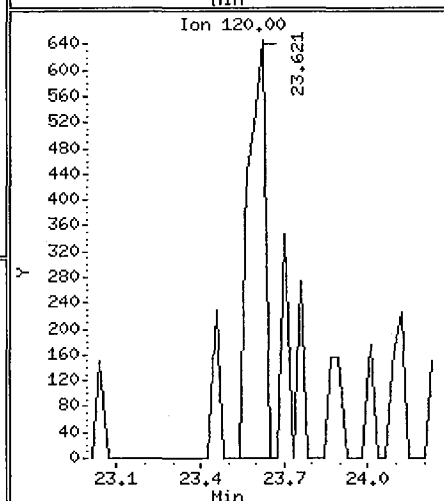
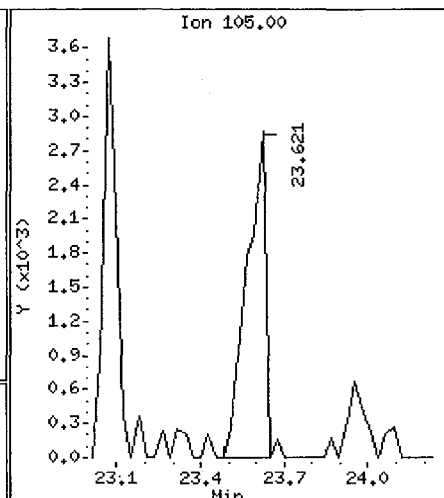
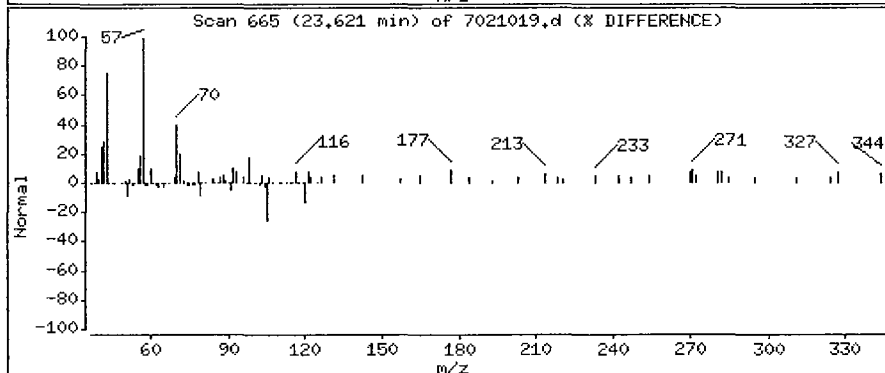
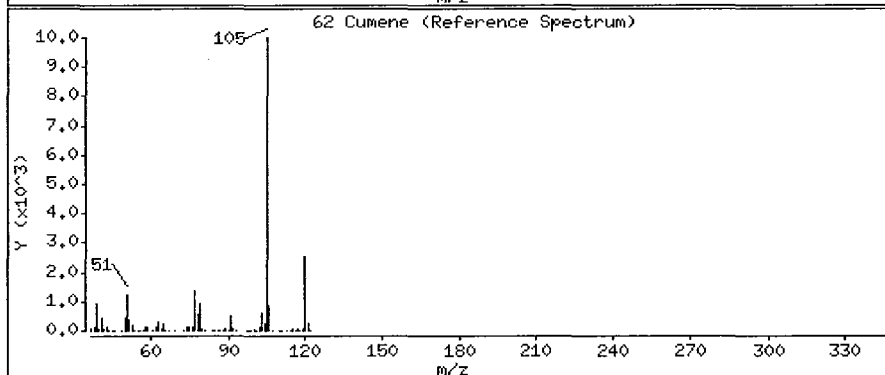
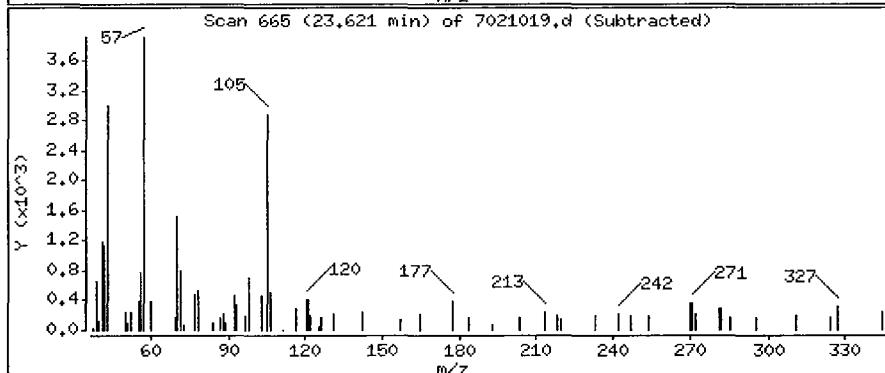
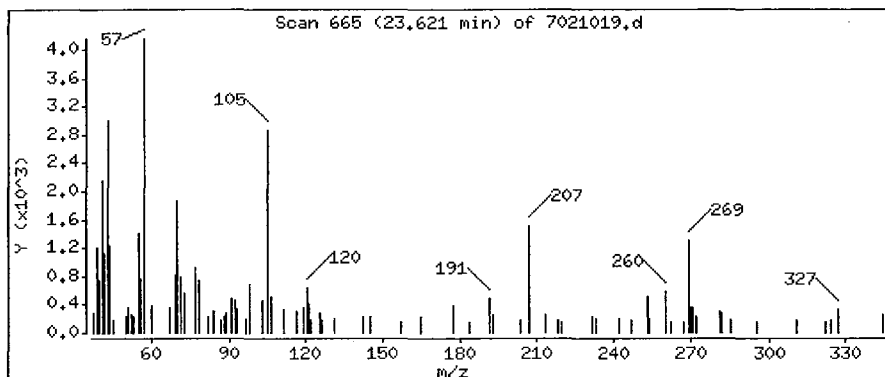
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

62 Cumene

Concentration: 0.08268 PPBV



0149

SCOEPAA00031821

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

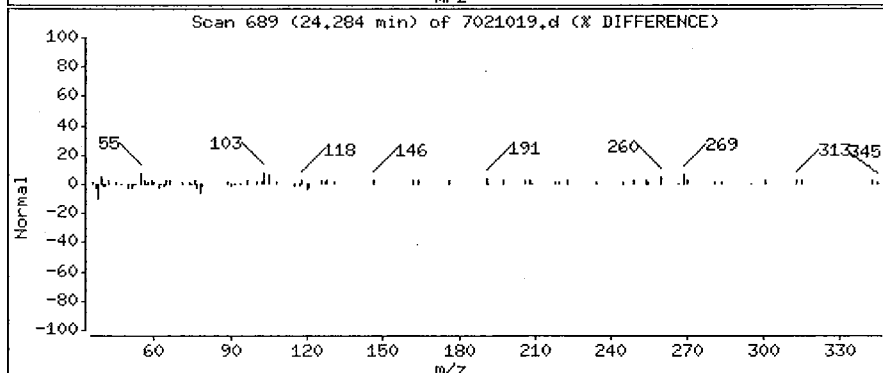
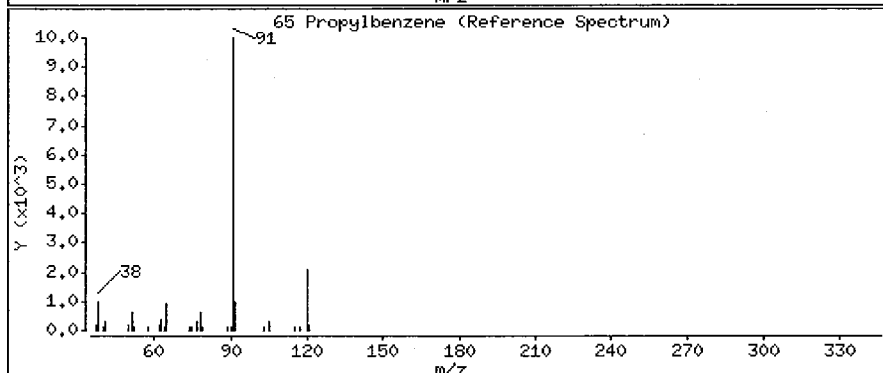
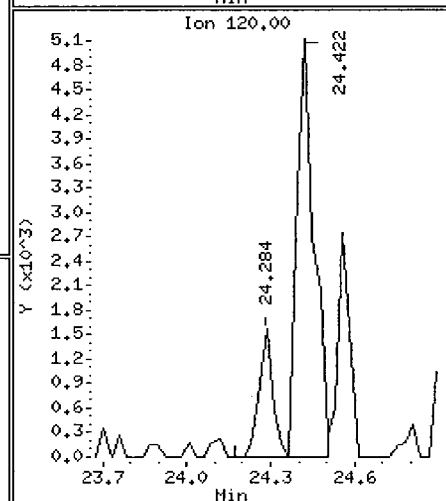
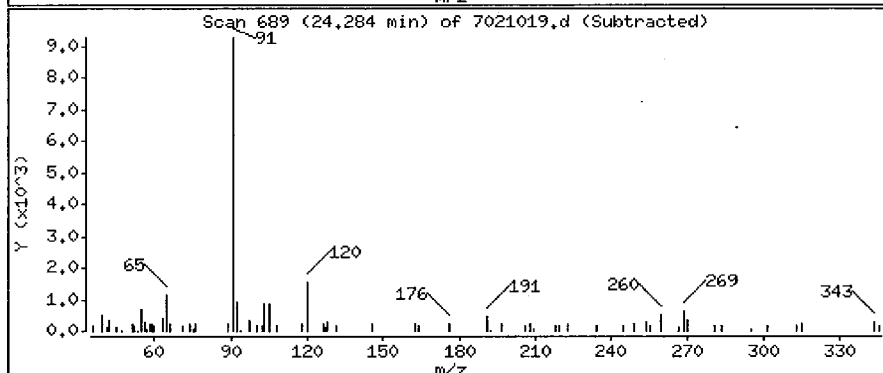
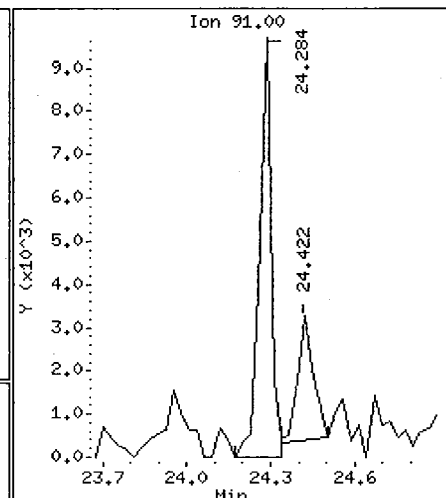
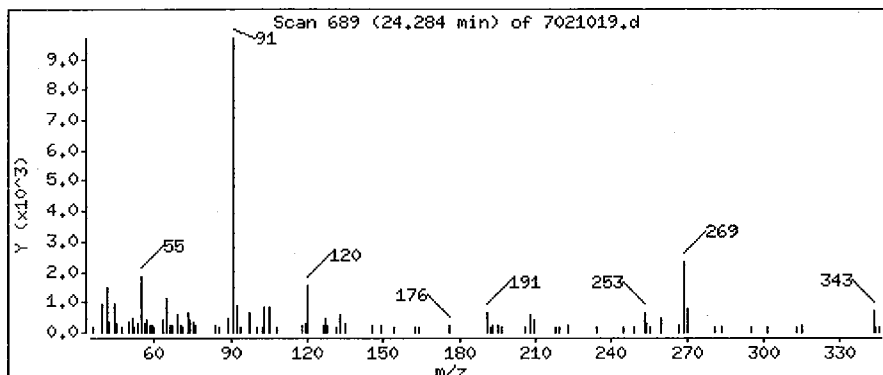
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1266 PPBV



0150

SCOEPAA00031822

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

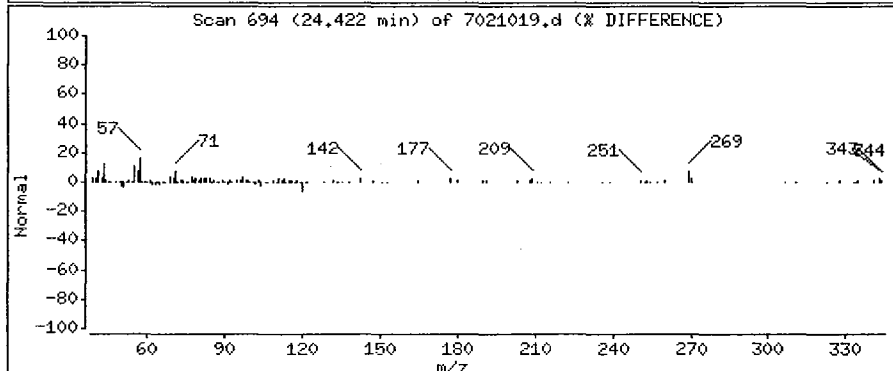
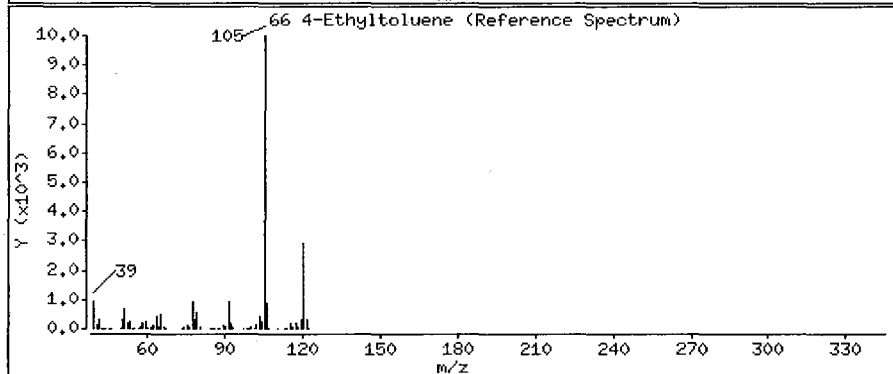
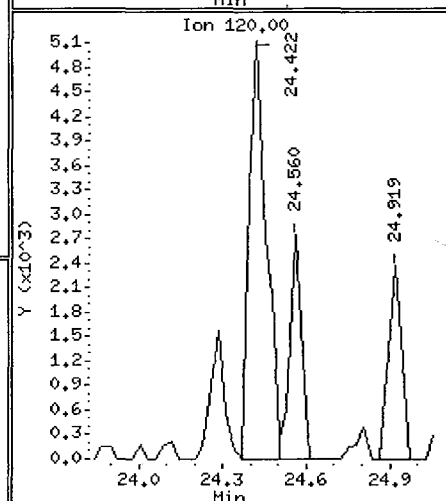
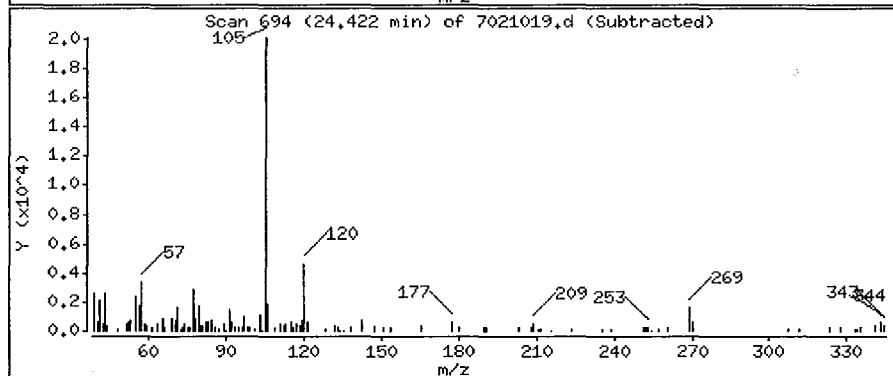
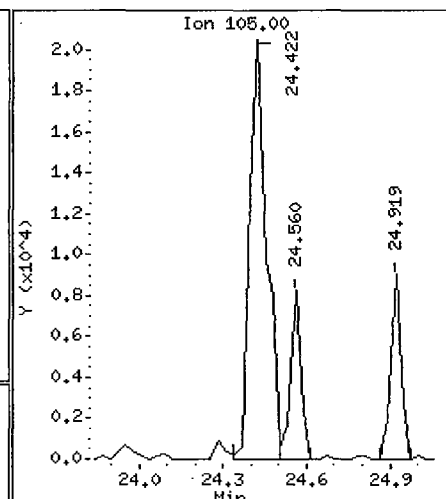
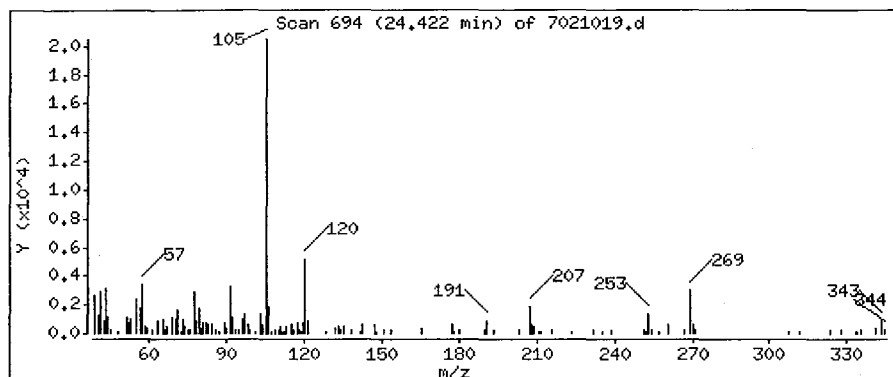
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.4979 PPBV



0151

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

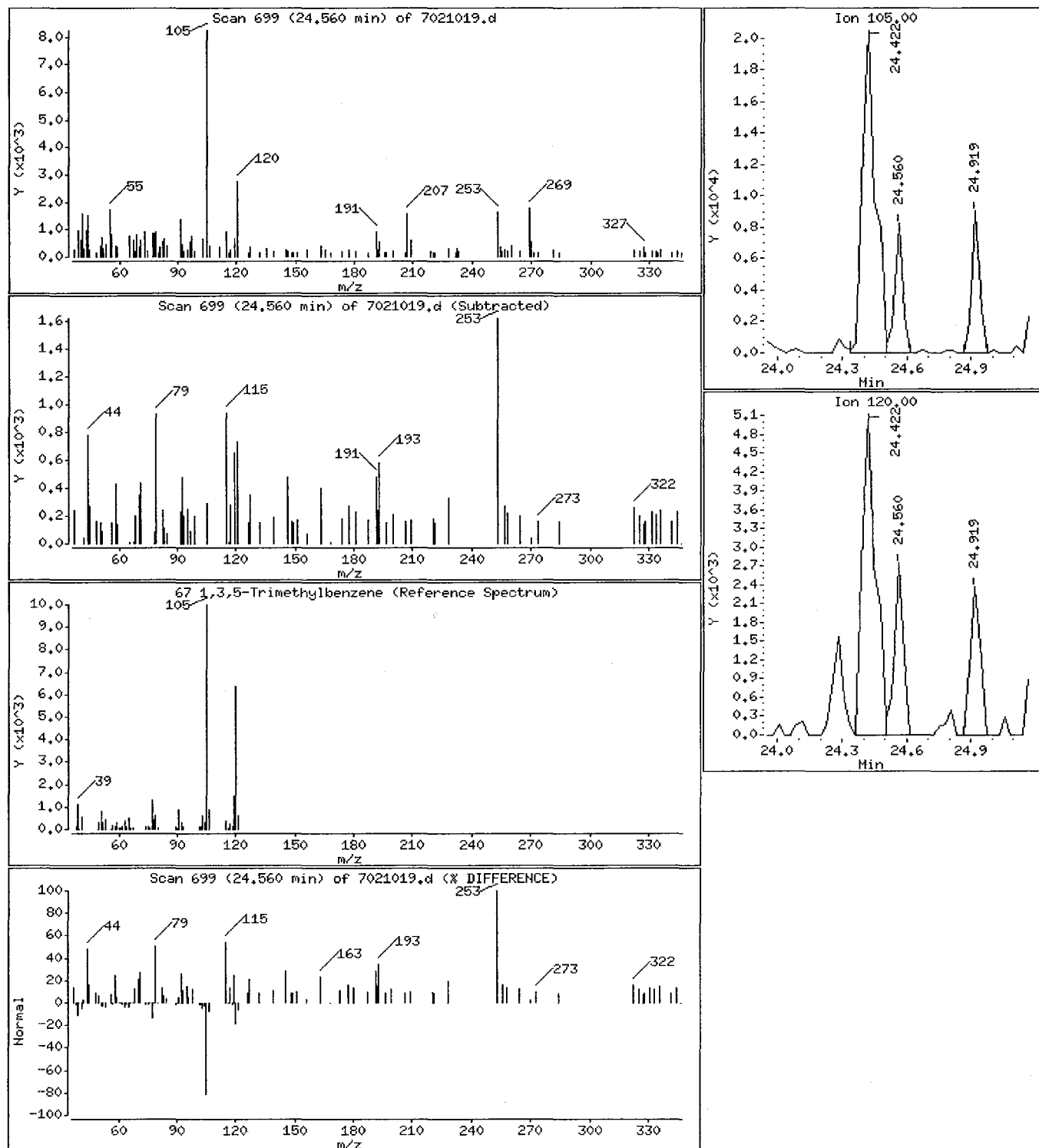
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1370 PPBV



0152

Date : 10-FEB-2005 22:32

Client ID:

Instrument: msd7.i

Sample Info: 500ml can#10987

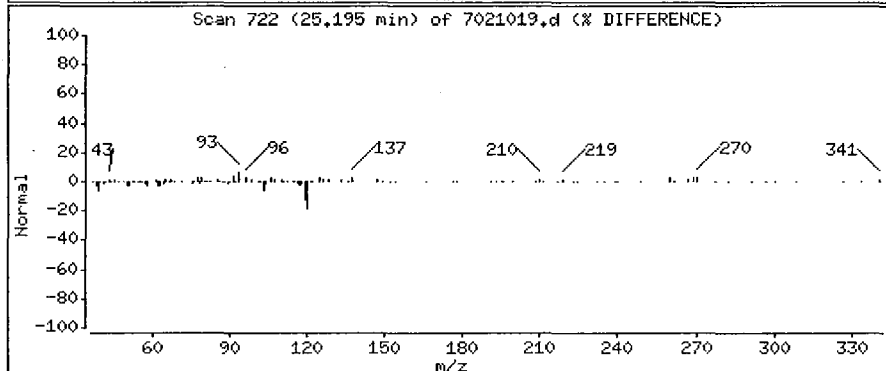
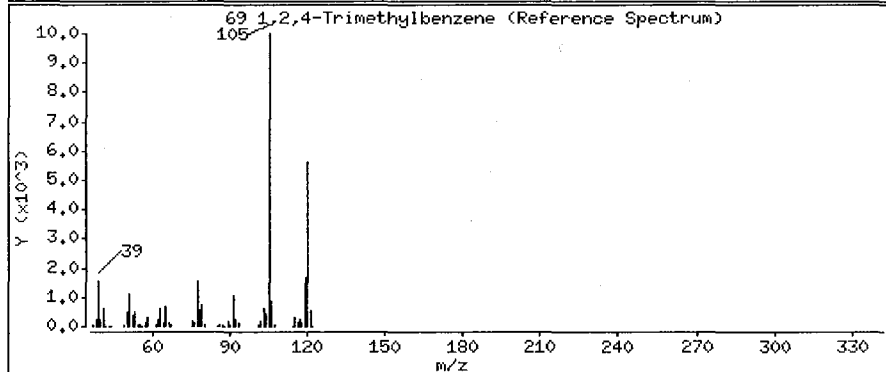
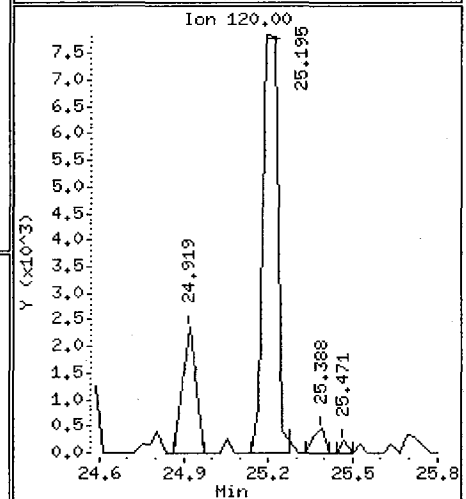
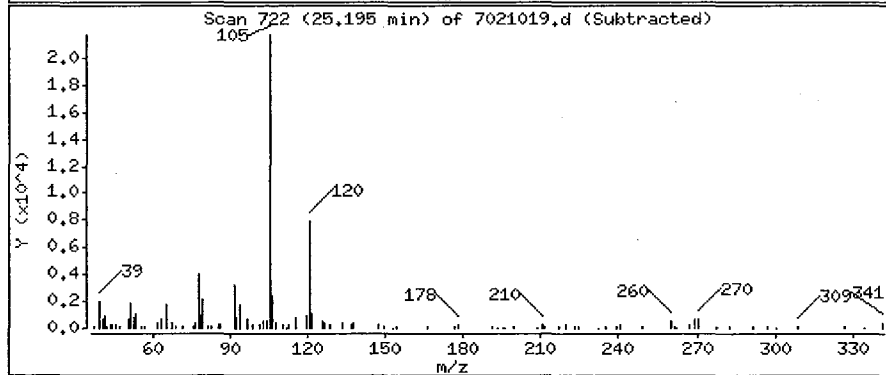
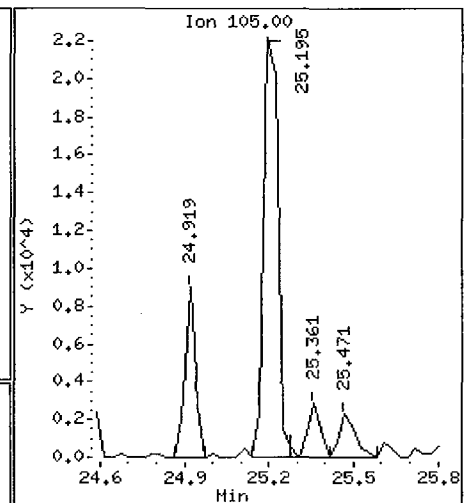
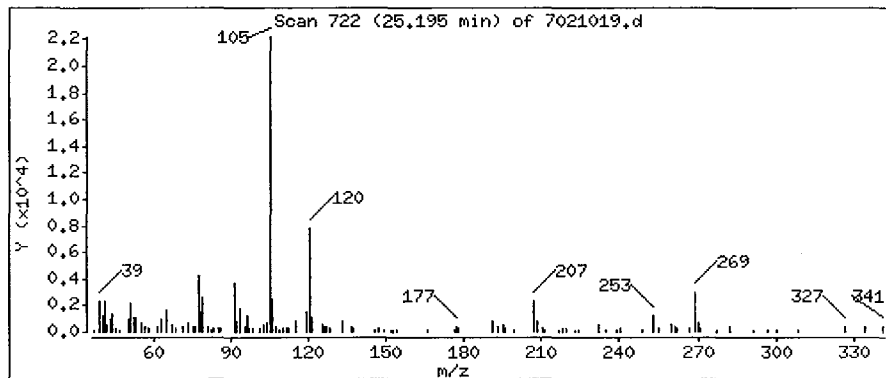
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.5227 PPBV



0153

AIR TOXICS LTD.

SAMPLE NAME: #5, Fab 2, SubFab, Slicing

ID#: 0502032-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021021	Date of Collection:	1/25/05
Dil. Factor:	1.75	Date of Analysis:	2/11/05 12:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.60	0.86	3.0
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.46	0.36	0.96
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	Not Detected	0.68	Not Detected
Chloroethane	0.18	Not Detected	0.46	Not Detected
Freon 11	0.18	0.47	0.98	2.6
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	0.070 J	0.85	0.34 J
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Carbon Tetrachloride	0.18	0.11 J	1.1	0.69 J
Benzene	0.18	0.56	0.56	1.8
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
Toluene	0.18	1.7	0.66	6.4
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.30	0.76	1.3
m,p-Xylene	0.18	0.97	0.76	4.2
o-Xylene	0.18	0.36	0.76	1.6
Styrene	0.18	0.060 J	0.74	0.26 J
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	0.094 J	0.86	0.46 J
1,2,4-Trimethylbenzene	0.18	0.44	0.86	2.2
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
Methylene Chloride	0.35	0.22 J	1.2	0.75 J
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
1,3-Butadiene	0.88	Not Detected	1.9	Not Detected
Acetone	0.88	7.6	2.1	18
Carbon Disulfide	0.88	0.20 J	2.7	0.64 J

AIR TOXICS LTD.

SAMPLE NAME: #5, Fab 2, SubFab, Slicing

ID#: 0502032-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021021	Date of Collection:	1/25/05
Dil. Factor:	1.75	Date of Analysis:	2/11/05 12:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.88	160 E	2.2	380 E
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	0.68 J	2.6	2.0 J
Hexane	0.88	0.39 J	3.1	1.4 J
Tetrahydrofuran	0.88	0.14 J	2.6	0.42 J
Cyclohexane	0.88	0.25 J	3.0	0.86 J
1,4-Dioxane	0.88	Not Detected	3.2	Not Detected
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	0.88	0.26 J	3.6	1.0 J
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected
Bromoform	0.88	Not Detected U J	9.0	Not Detected U J
4-Ethyltoluene	0.88	0.42 J	4.3	2.0 J
Ethanol	0.88	7.6	1.6	14
Methyl tert-butyl ether	0.88	Not Detected	3.2	Not Detected
Heptane	0.88	0.27 J	3.6	1.1 J
Cumene	0.88	Not Detected	4.3	Not Detected
Propylbenzene	0.88	0.11 J	4.3	0.53 J
Naphthalene	0.88	Not Detected	4.6	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	109	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021021.d
Lab Smp Id: 0502032-05A
Inj Date : 11-FEB-2005 00:09
Operator : WW Inst ID: msd7.i
Smp Info : 500mL Can#10777
Misc Info : 7.0"Hg-5psi Clayton
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 19:17 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	----	=====	=====	=====	=====	=====	

* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	431525	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	315916			26.96- 126.96	73.21	
16.331	16.331	(1.000)	49	747359			126.50- 226.50	173.19	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	1866887	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	323229			0.00- 67.73	17.31	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1316491	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	804770			9.26- 109.26	61.13	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	909056	10.2282	10.228	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	413772			0.17- 100.17	45.52	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1554459	9.75976	9.760	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	207913			0.00- 61.87	13.38	

0156

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1106720			21.49- 121.49	71.20	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	743434	10.9315	10.932	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1148478			102.12- 202.12	154.48	
23.953	23.953	(1.082)	176	722314			47.05- 147.05	97.16	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	120370	0.34413	0.6022	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	37769			0.00- 82.65	31.38	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	26732	0.26509	0.4639	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	6285			0.00- 84.65	23.51	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	81951	0.26944	0.4715	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	55516			14.29- 114.29	67.74	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	184791	4.32863	7.575	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	39285			0.00- 76.71	21.26	
12.050	12.050	(0.738)	46	73484			0.00- 90.17	39.77	

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	982193	4.31950	7.559	80.00- 120.00	100.00	
12.851	12.824	(0.787)	58	264838			0.00- 78.78	26.96	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	19183127	89.2552	156.20	80.00- 120.00	100.00(A)	
13.238	13.238	(0.811)	43	3645697			0.00- 69.75	19.00	
13.238	13.238	(0.811)	59	666286			0.00- 53.72	3.47	

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	32965	0.11672	0.2043	80.00- 120.00	100.00(a)	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	11096	0.12331	0.2158	80.00- 120.00	100.00(a)	
13.735	13.735	(0.841)	49	17115			96.36- 196.36	154.24	
13.735	13.735	(0.841)	51	8140			0.00- 93.42	73.36	

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	38417	0.22531	0.3943	80.00- 120.00	100.00(a)	
14.563	14.563	(0.892)	43	39057			15.23- 115.23	101.67	
14.563	14.563	(0.892)	86	6572			0.00- 65.23	17.11	

0157

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
28 2-Butanone					CAS #: 78-93-3		
15.972	15.972 (0.978)	72	18373	0.38992	0.6824	80.00- 120.00	100.00(a)
15.972	15.972 (0.978)	43	101285			1029.22-1129.22	551.27
15.972	15.972 (0.978)	57	8726			0.00- 89.21	47.49

23 Tetrahydrofuran					CAS #: 109-99-9		
16.331	16.331 (1.000)	42	10547	0.08066	0.1412	80.00- 120.00	100.00(a)
16.331	16.331 (1.000)	71	4471			0.00- 84.14	42.39
16.331	16.331 (1.000)	72	2592			0.00- 86.54	24.58

30 Chloroform					CAS #: 67-66-3		
16.414	16.414 (1.005)	83	8268	0.04005	0.07009	80.00- 120.00	100.00(a)
16.414	16.414 (1.005)	85	7077			16.09- 116.09	85.60

31 Cyclohexane					CAS #: 110-82-7		
16.662	16.662 (1.020)	84	13517	0.14337	0.2509	80.00- 120.00	100.00(a)
16.662	16.662 (1.020)	56	76963			93.37- 193.37	569.38
16.662	16.662 (1.020)	41	50406			30.80- 130.80	372.91

33 Carbon Tetrachloride					CAS #: 56-23-5		
16.883	16.883 (1.034)	119	9776	0.06309	0.1104	80.00- 120.00	100.00(a)
16.855	16.883 (1.032)	117	10263			61.49- 161.49	104.98

35 Benzene					CAS #: 71-43-2		
17.214	17.214 (0.967)	78	87009	0.32114	0.5620	80.00- 120.00	100.00
17.214	17.214 (0.967)	77	20454			0.00- 72.07	23.51

37 Heptane					CAS #: 142-82-5		
17.435	17.435 (0.980)	43	24191	0.15292	0.2676	80.00- 120.00	100.00(a)
17.435	17.435 (0.980)	57	14924			1.42- 101.42	61.69
17.463	17.435 (0.981)	100	5111			0.00- 66.93	21.13

44 4-Methyl-2-pentanone					CAS #: 108-10-1		
19.727	19.727 (1.109)	43	25597	0.14626	0.2560	80.00- 120.00	100.00(a)
19.727	19.727 (1.109)	58	11605			0.00- 87.49	45.34
19.727	19.727 (1.109)	85	4067			0.00- 66.91	15.89

46 Toluene					CAS #: 108-88-3		
20.004	20.004 (1.124)	91	299434	0.96467	1.688	80.00- 120.00	100.00
20.004	20.004 (1.124)	92	179219			12.22- 112.22	59.85

56 Ethyl Benzene					CAS #: 100-41-4		
22.268	22.268 (1.006)	106	18623	0.17229	0.3015	80.00- 120.00	100.00
22.268	22.268 (1.006)	91	54520			294.68- 394.68	292.76

57 m,p-Xylene					CAS #: 108-38-3		
22.434	22.434 (1.014)	106	73010	0.55227	0.9665	80.00- 120.00	100.00

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====
57 m,p-Xylene (continued)							
22.434	22.434	(1.014)	91	158121		168.06- 268.06	216.57

58 o-Xylene		CAS #: 95-47-6					
23.069	23.069	(1.042)	106	22006	0.20440	0.3577 80.00- 120.00	100.00
23.069	23.069	(1.042)	91	52327		189.62- 289.62	237.79

59 Styrene		CAS #: 100-42-5					
23.096	23.096	(1.044)	104	5767	0.03460	0.06056 80.00- 120.00	100.00(a)
23.069	23.096	(1.042)	78	5188		7.14- 107.14	89.96

65 Propylbenzene		CAS #: 103-65-1					
24.284	24.284	(1.097)	91	22240	0.06184	0.1082 80.00- 120.00	100.00(a)
24.284	24.284	(1.097)	120	3516		0.00- 69.13	15.81

66 4-Ethyltoluene		CAS #: 622-96-8					
24.422	24.450	(1.104)	105	68587	0.23910	0.4184 80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	22013		0.00- 75.29	32.10

67 1,3,5-Trimethylbenzene		CAS #: 108-67-8					
24.560	24.560	(1.110)	105	13638	0.05359	0.09378 80.00- 120.00	100.00(a)
24.560	24.560	(1.110)	120	8170		0.00- 89.72	59.91

69 1,2,4-Trimethylbenzene		CAS #: 95-63-6					
25.195	25.195	(1.139)	105	61787	0.25378	0.4441 80.00- 120.00	100.00
25.195	25.195	(1.139)	120	21988		0.00- 87.12	35.59

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7021021.d
Lab Smp Id: 0502032-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 7.0"Hg-5psi Clayton

Calibration Date: 10-FEB-2005
Calibration Time: 00:57
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	431525	-7.20
38 1,4-Difluorobenze	2172345	1303407	3041283	1866887	-14.06
54 Chlorobenzene-d5	1516792	910075	2123509	1316491	-13.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-10feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-05A	
Level: LOW	Operator: WW
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 7.0"Hg-5psi Clayton	

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.228	102.28	70-130
\$ 45 Toluene-d8	10.000	9.760	97.60	70-130
\$ 63 Bromofluorobenzene	10.000	10.932	109.32	70-130

0161

SCOEPA00031833

Date : 11-FEB-2005 00:09

Client ID:

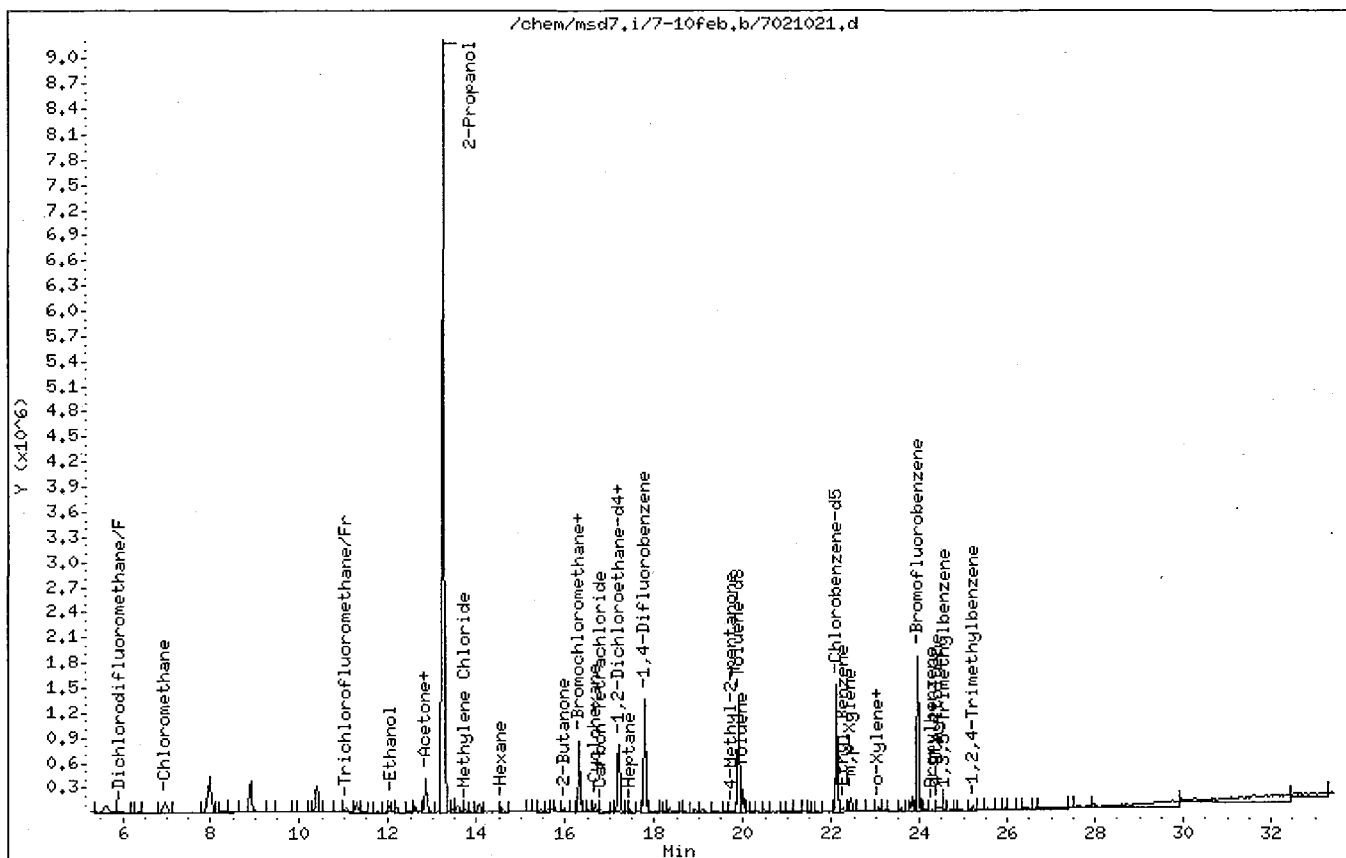
Instrument: msd7.i

Sample Info: 500mL Can#10777

Operator: NW

Column phase: RTX-624

Column diameter: 0.32



0162

SCOEP00031834

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

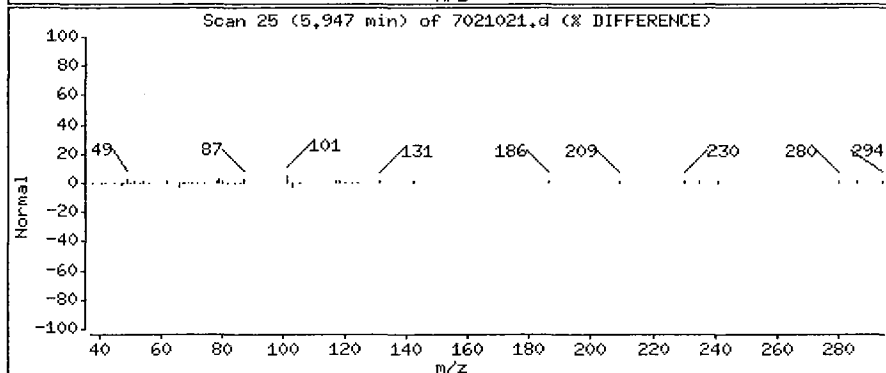
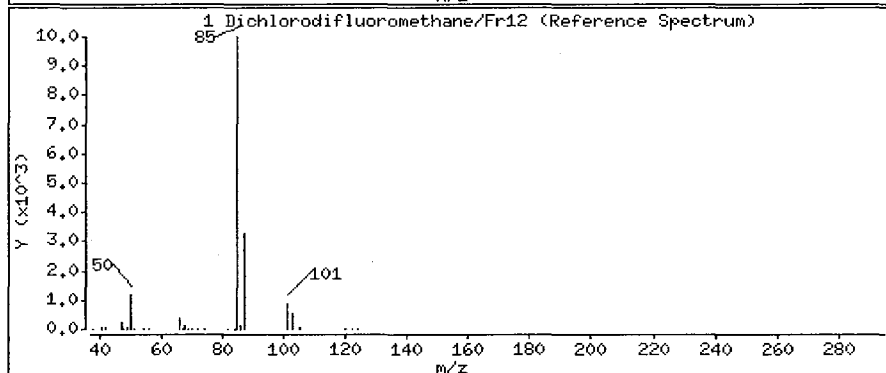
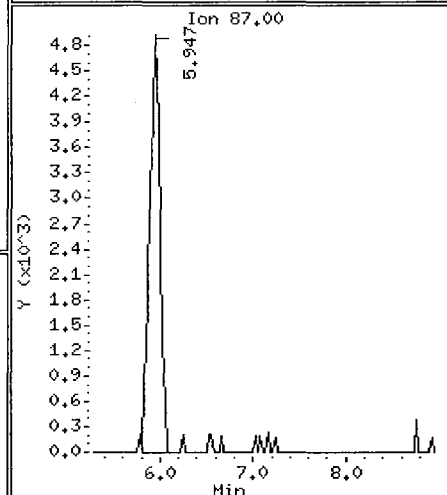
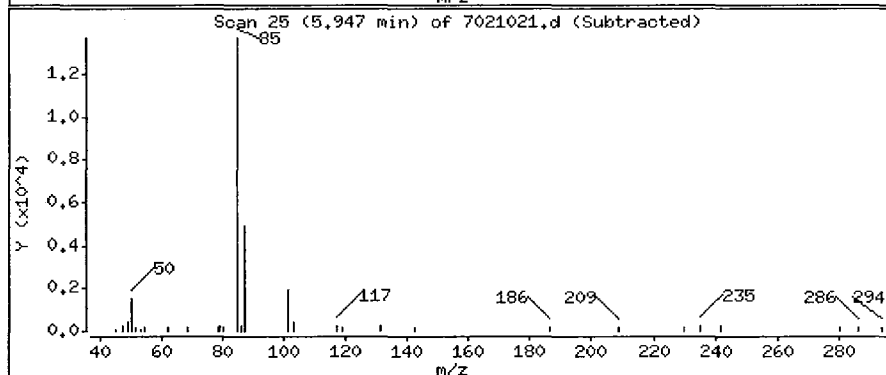
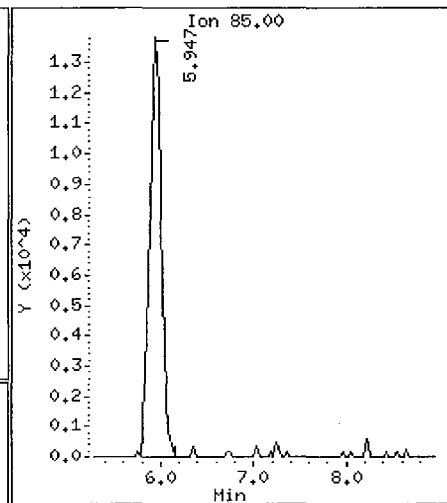
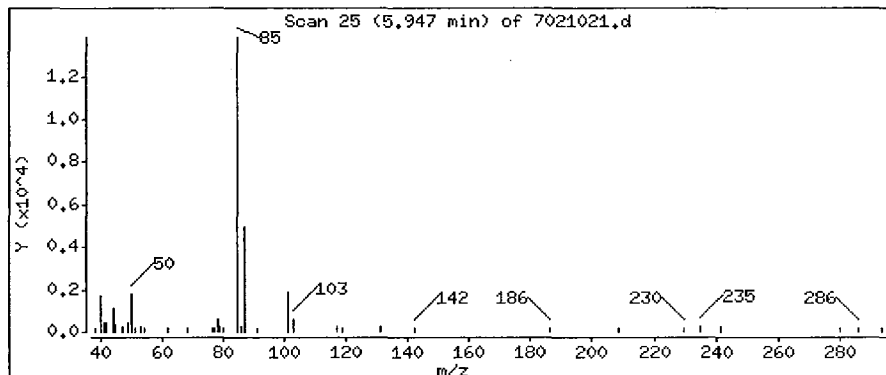
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.6022 PPBV



0163

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

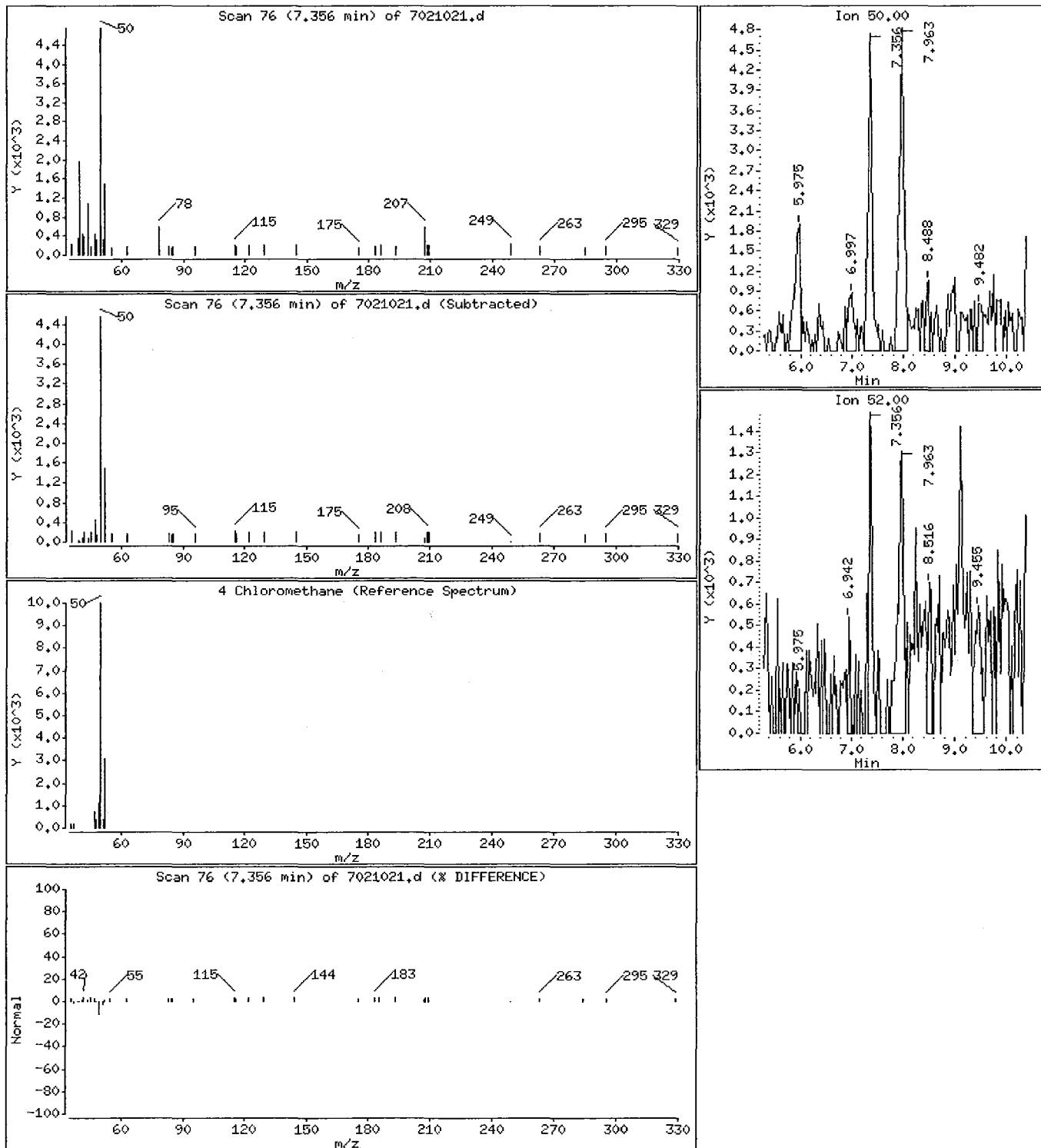
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4639 PPBV



0164

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

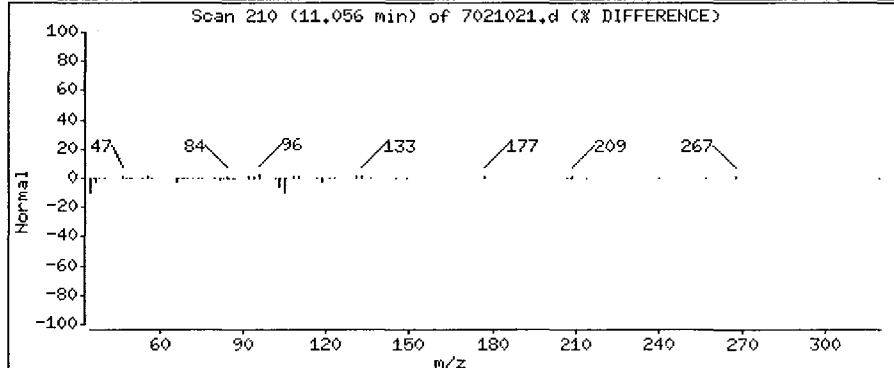
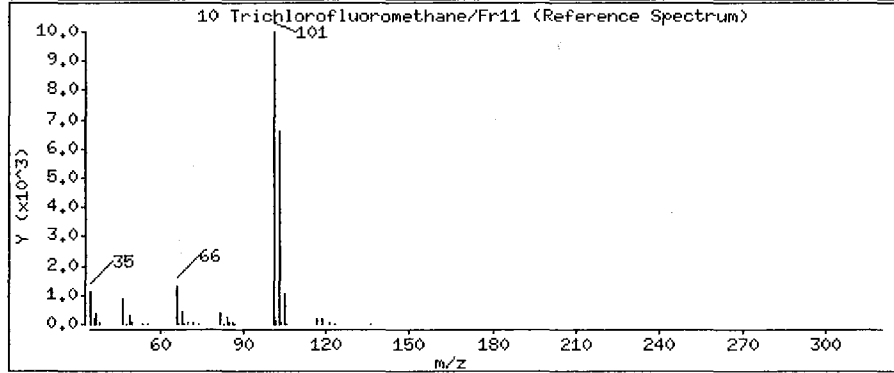
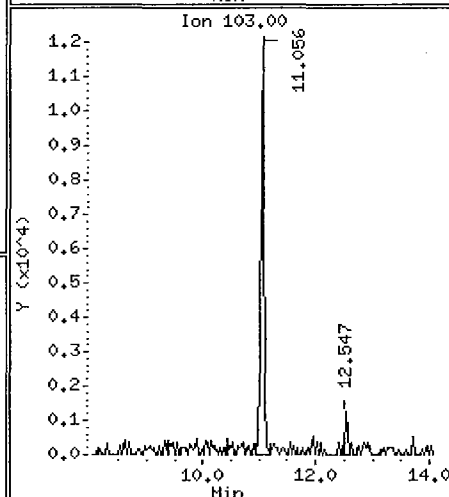
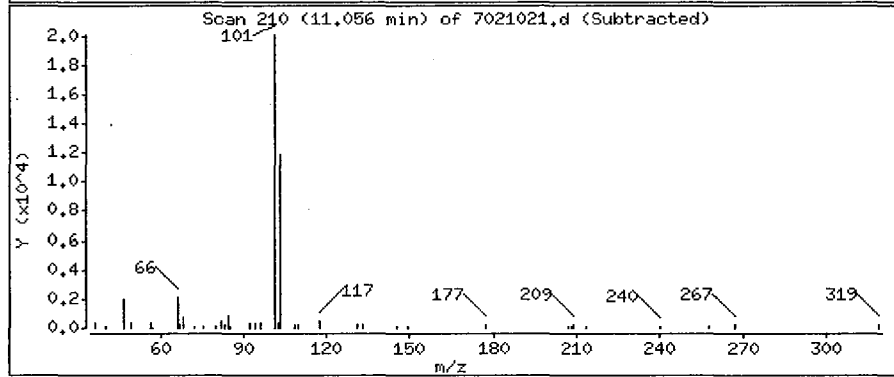
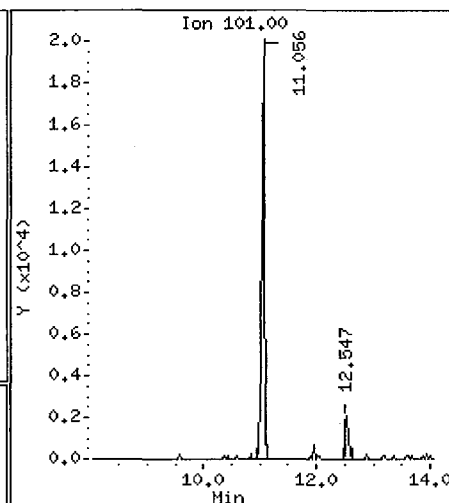
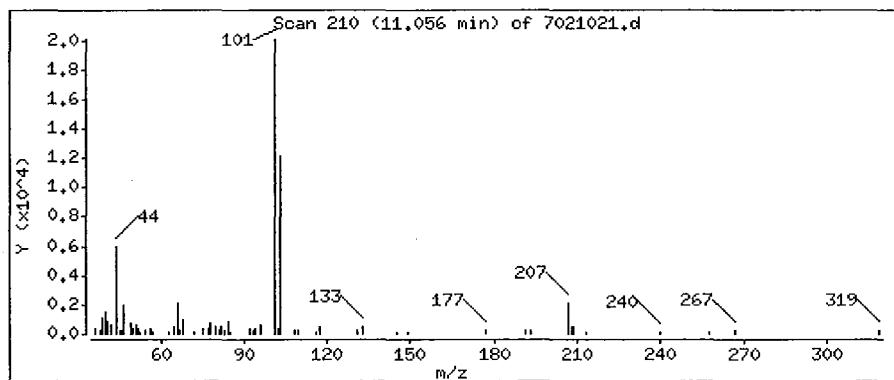
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.4715 PPBV



0165

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

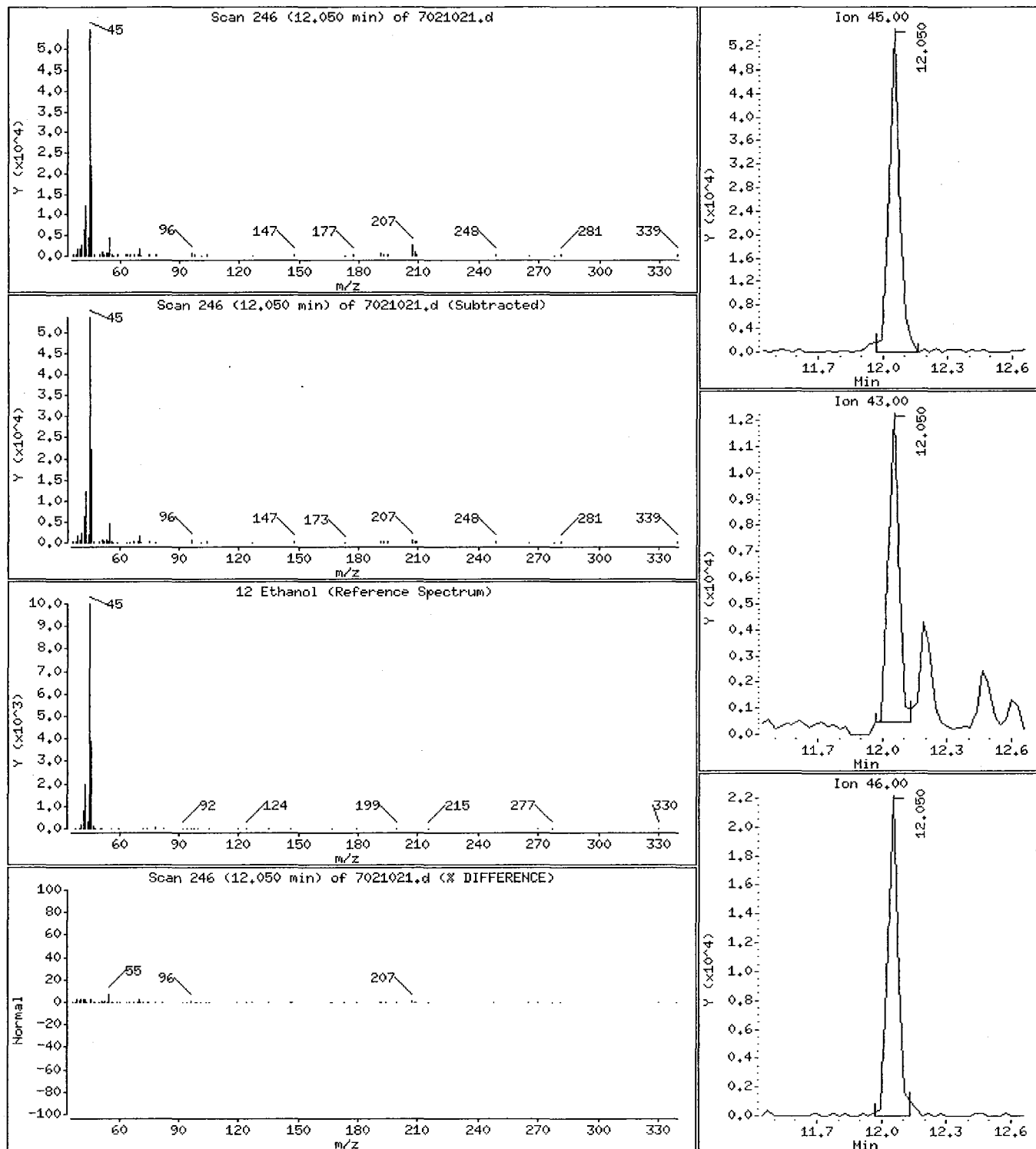
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 7.575 PPBV



0166

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

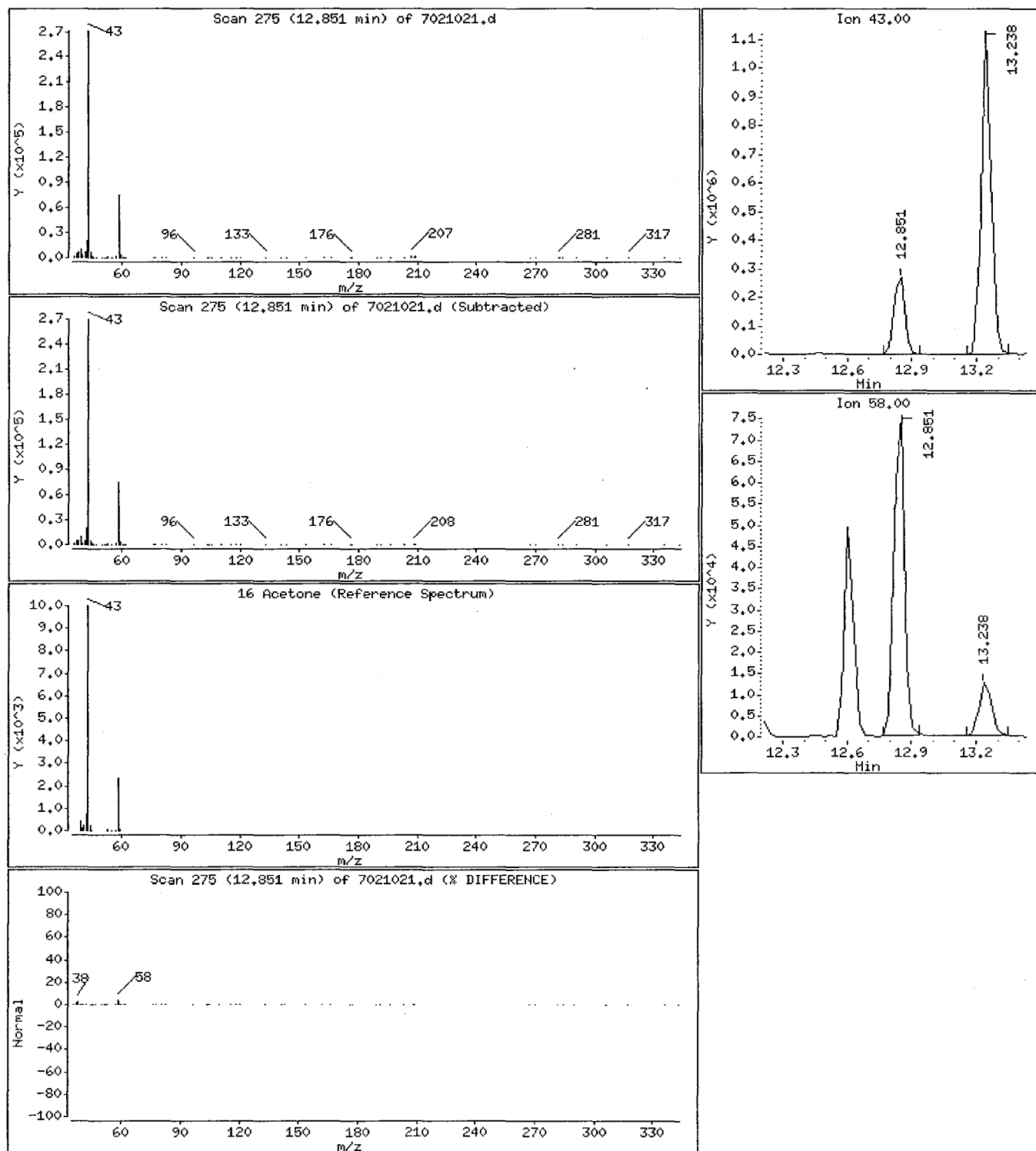
Operator: MW

Column phase: RTx-624

Column diameter: 0.32

16 Acetone

Concentration: 7.559 PPBV



0167

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

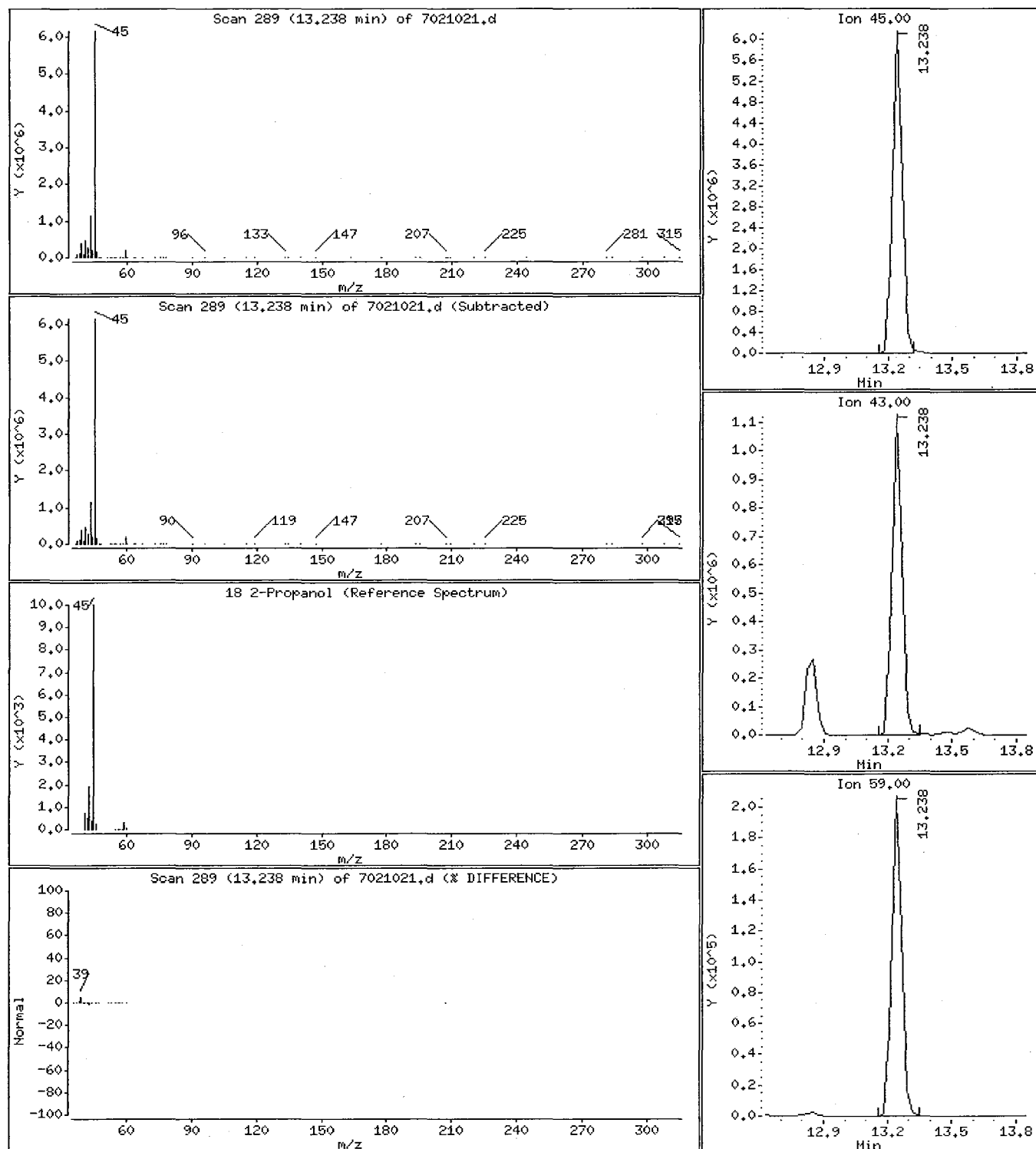
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 156.20 PPBV



0168

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

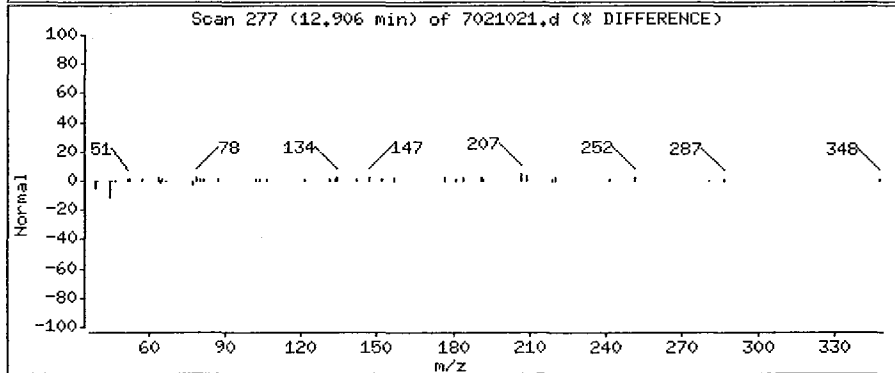
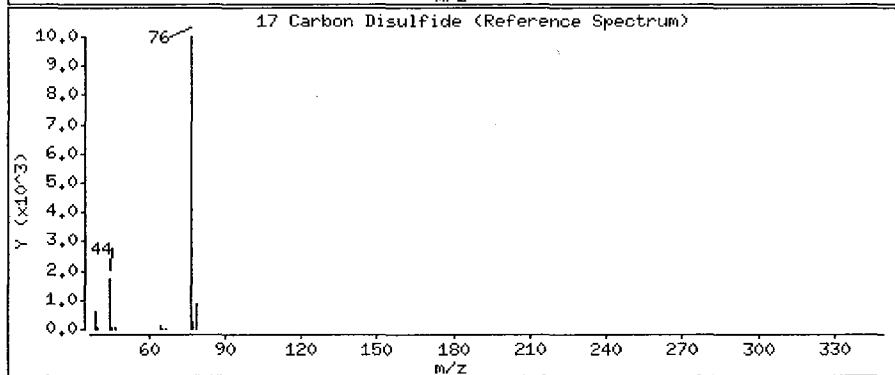
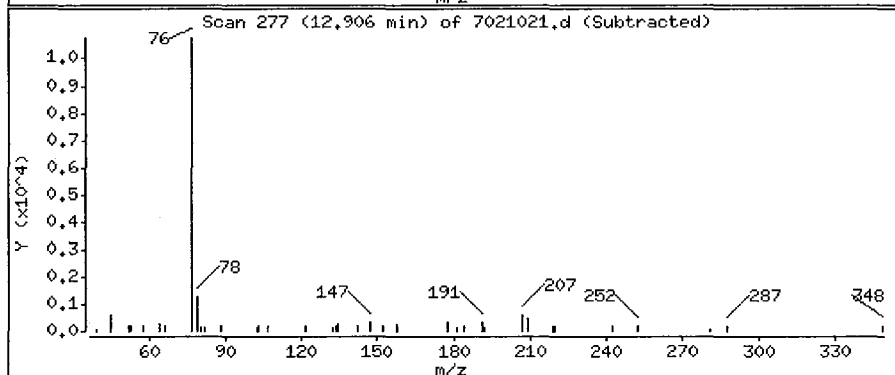
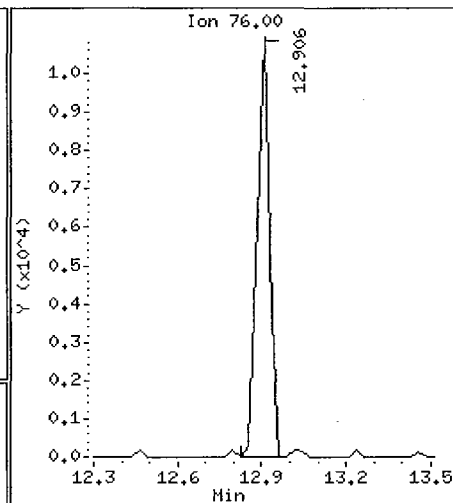
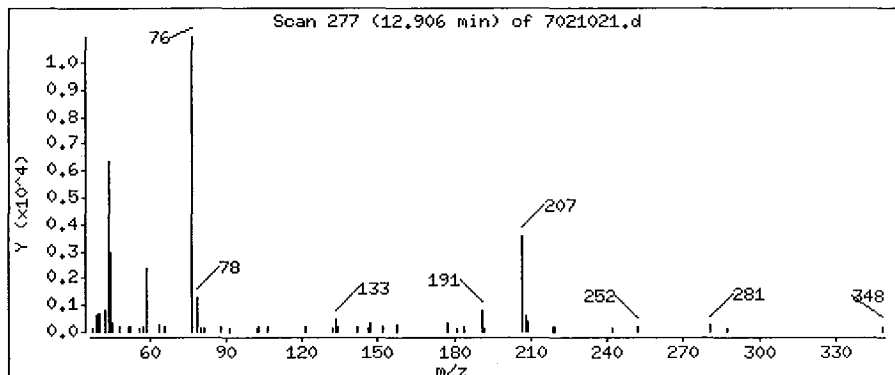
Operator: NW

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.2043 PPBV



0169

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

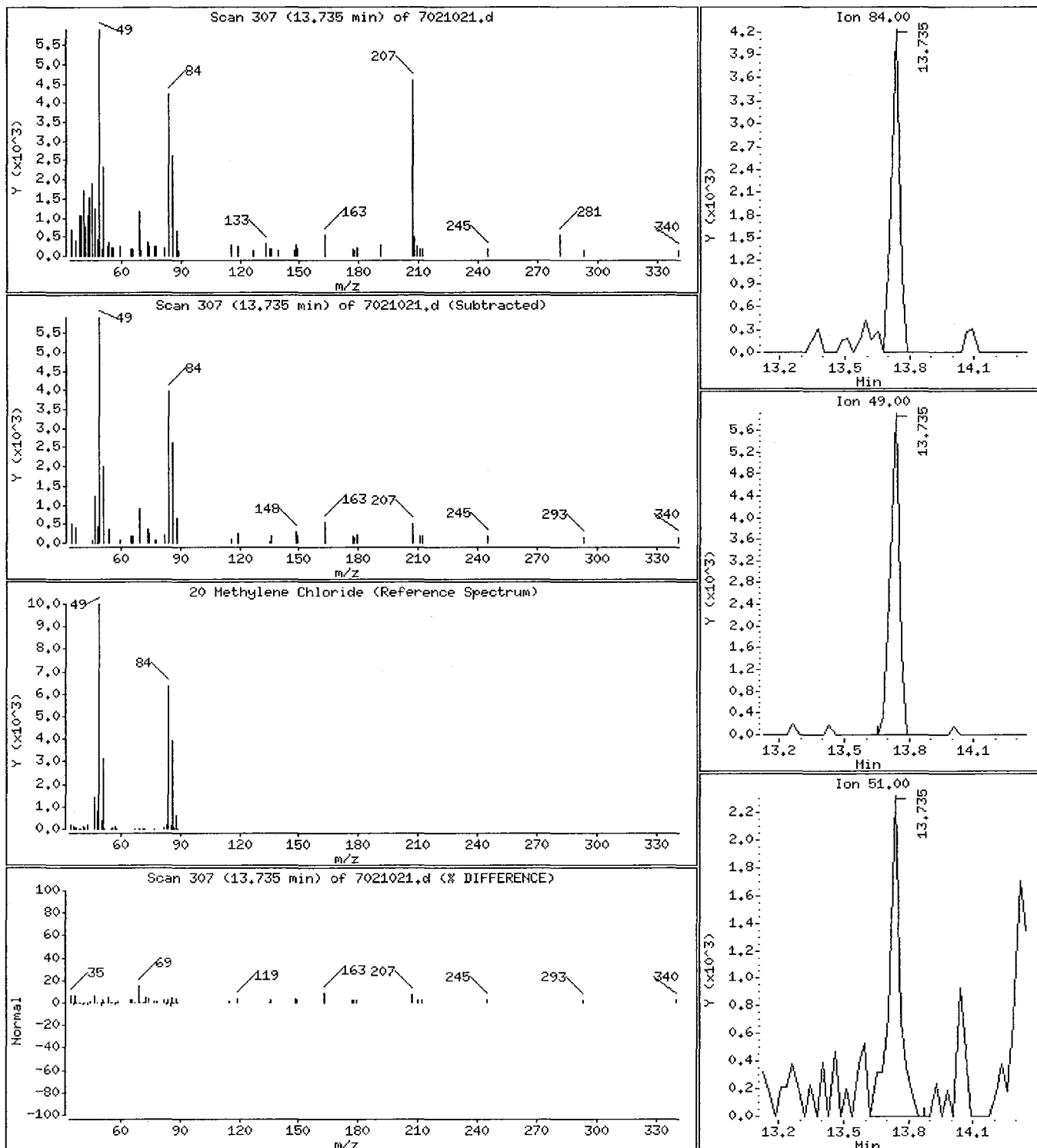
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.2158 PPBV



0170

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

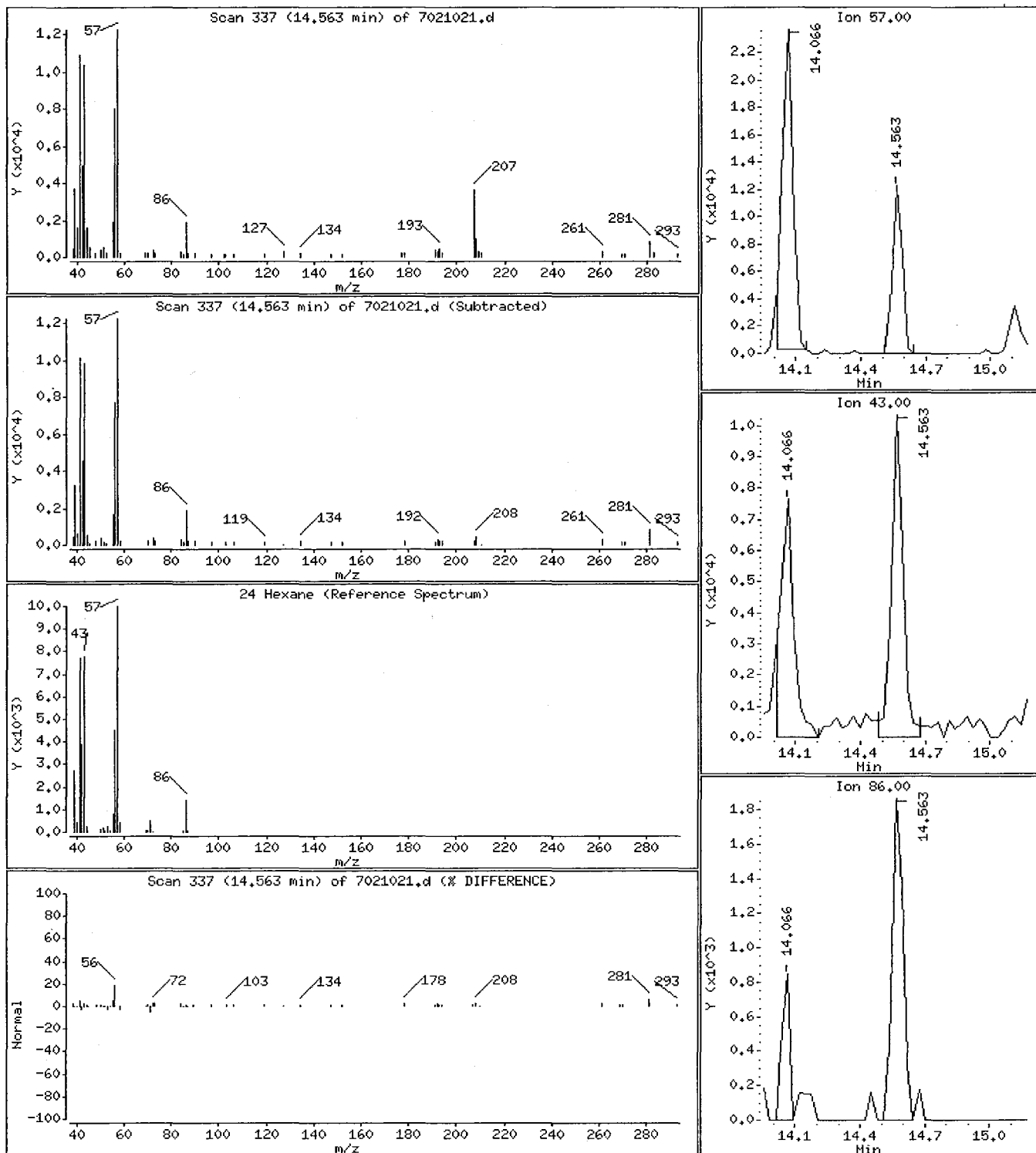
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.3943 PPBV



0171

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

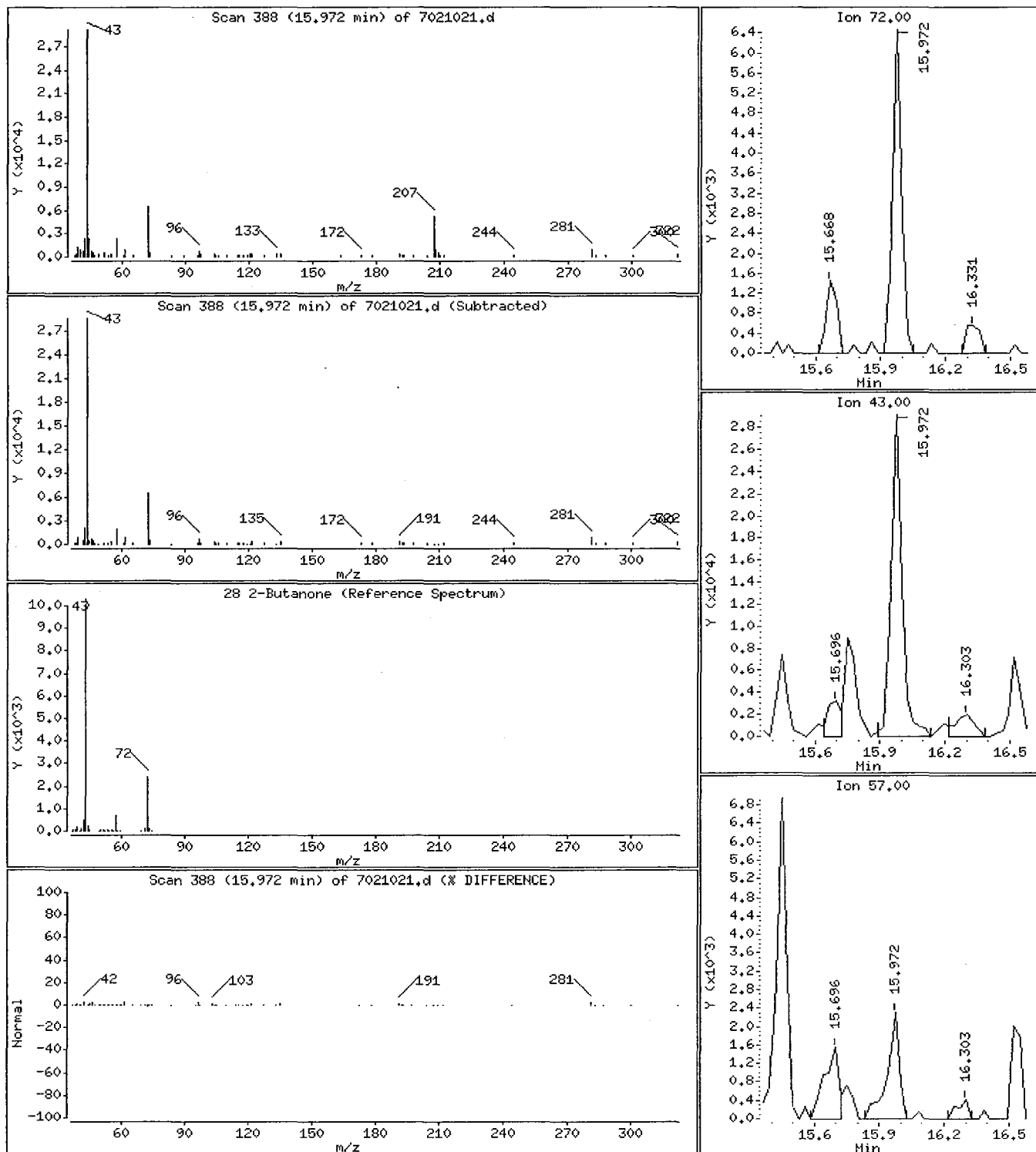
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 0.6824 PPBV



0172

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

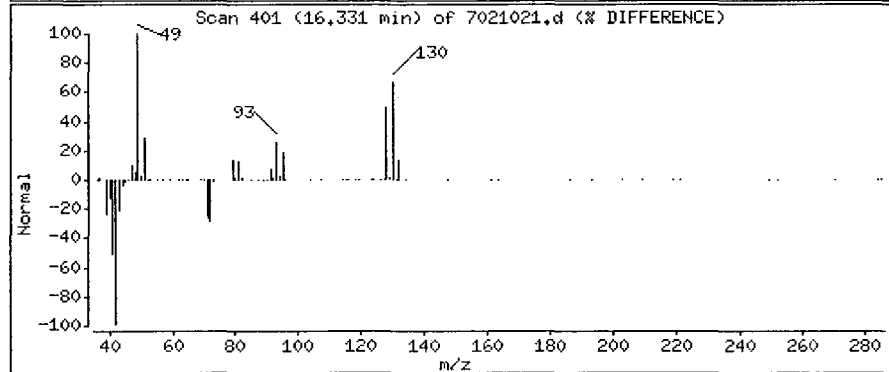
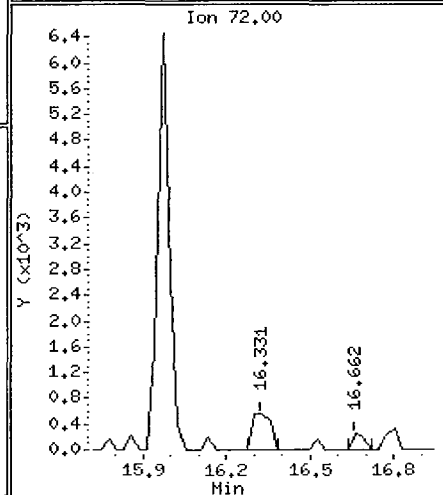
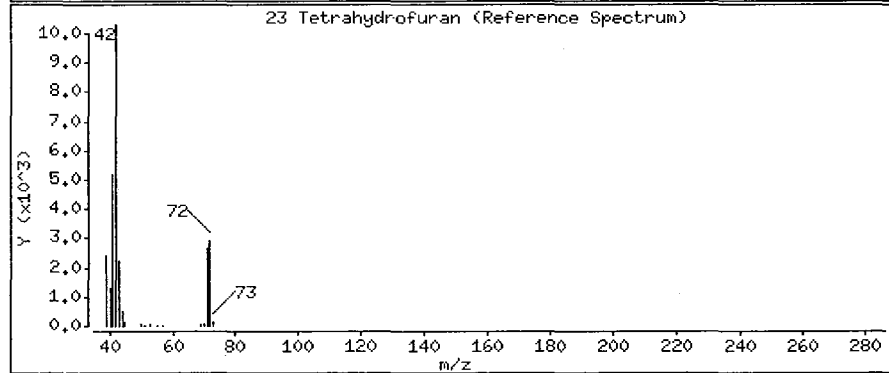
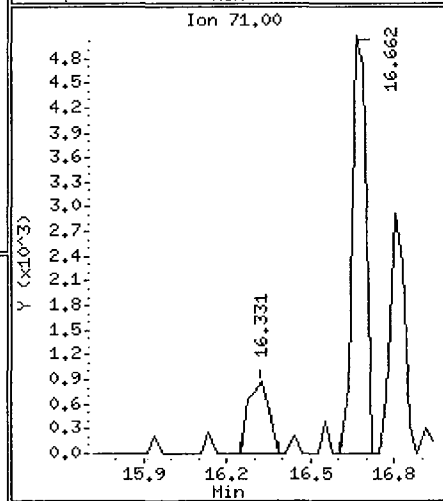
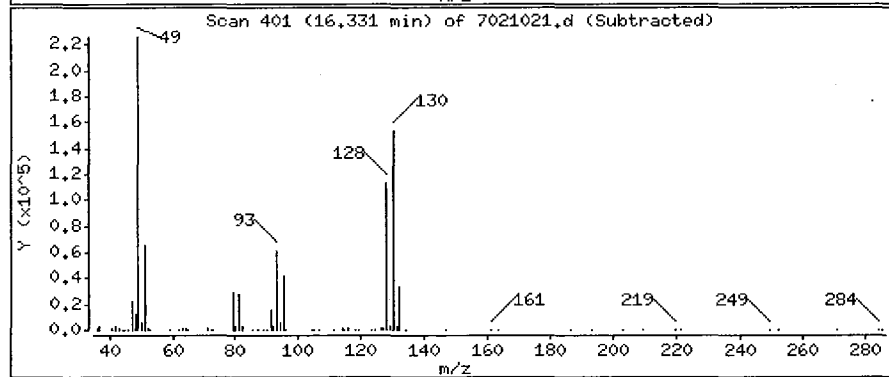
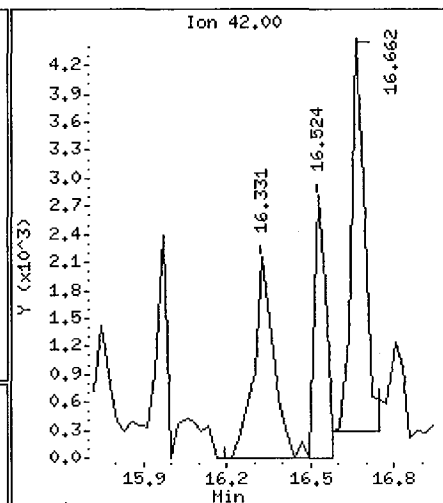
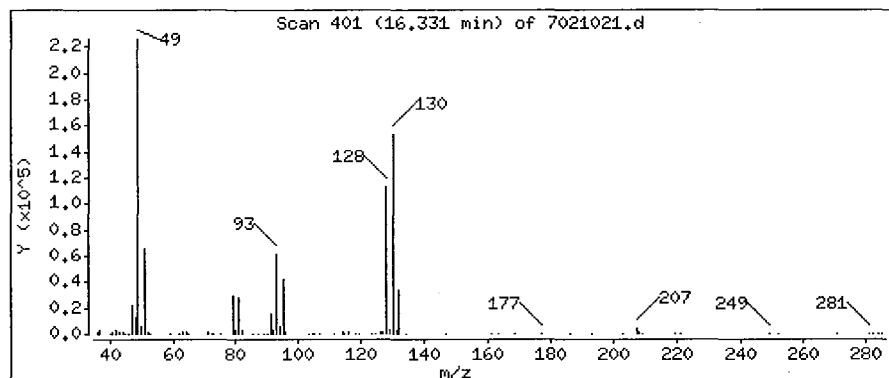
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1412 PPBV



0173

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

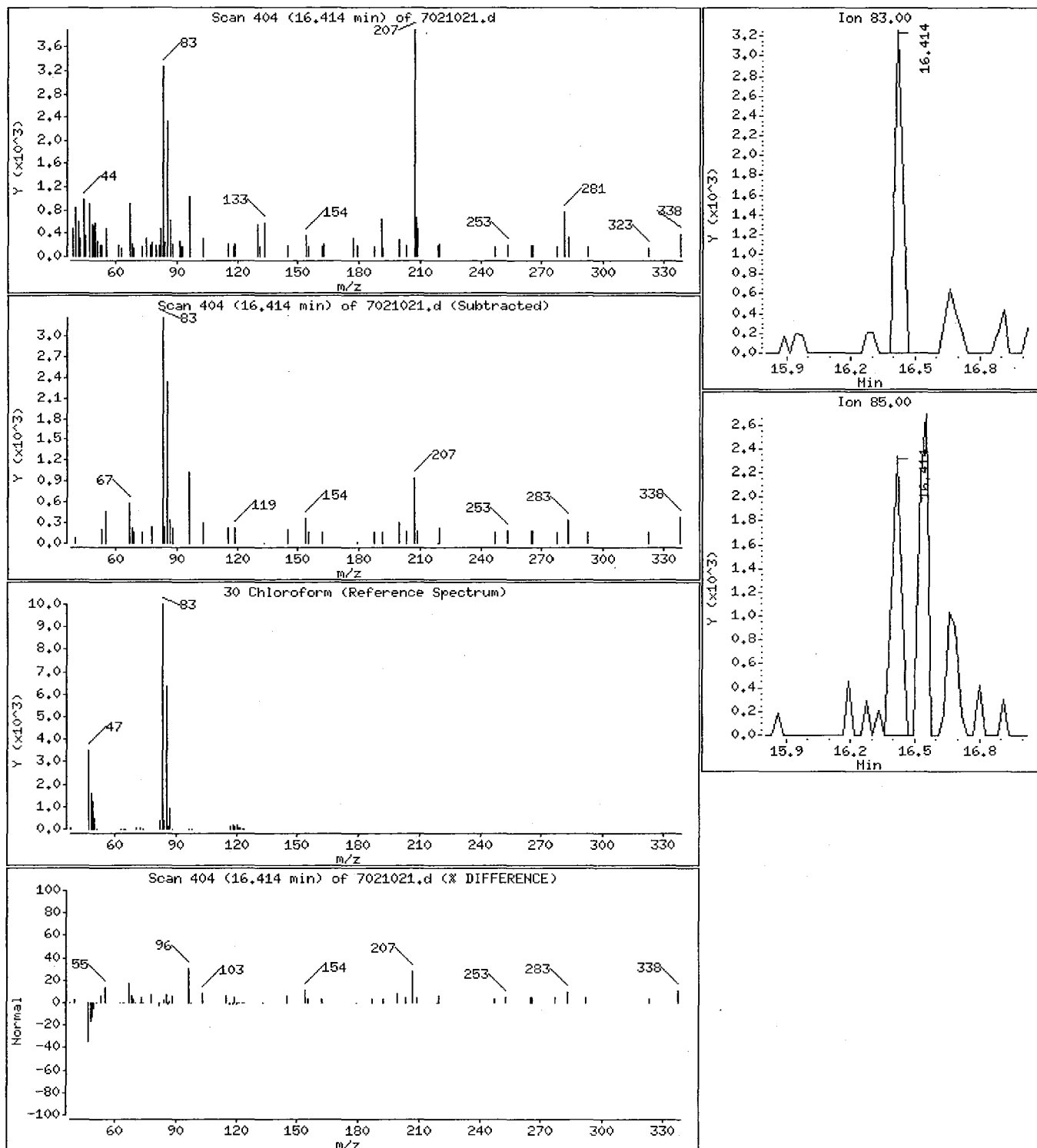
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.07009 PPBV



0174

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

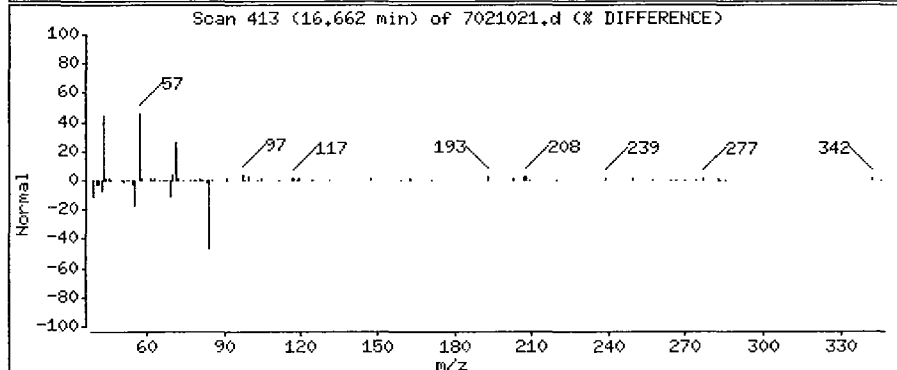
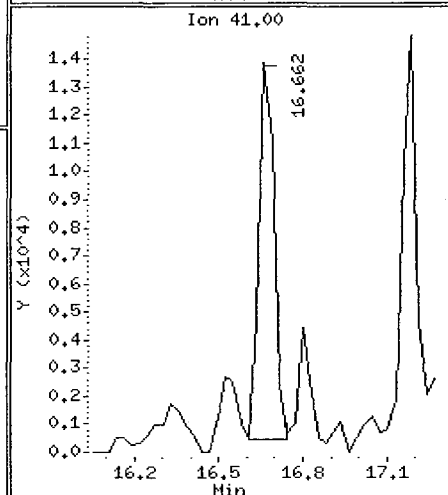
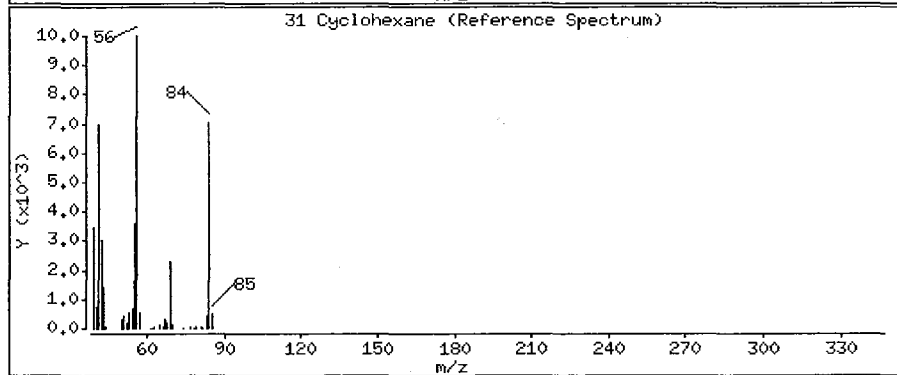
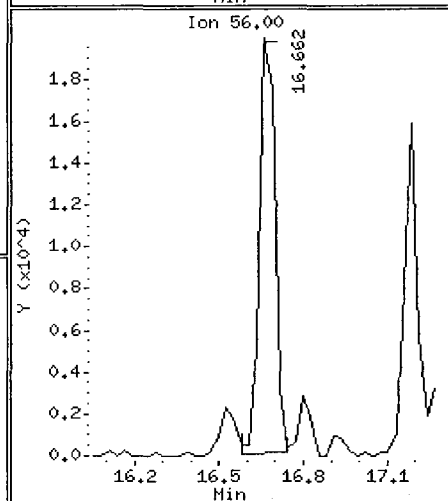
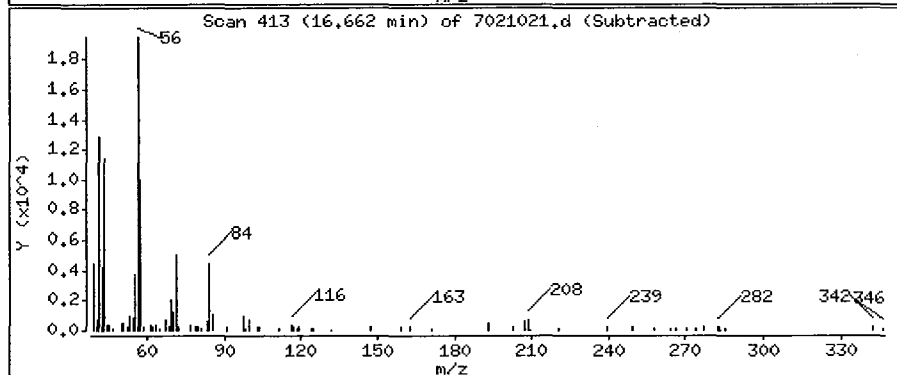
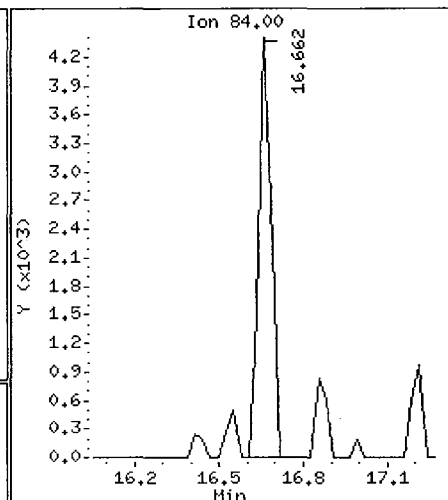
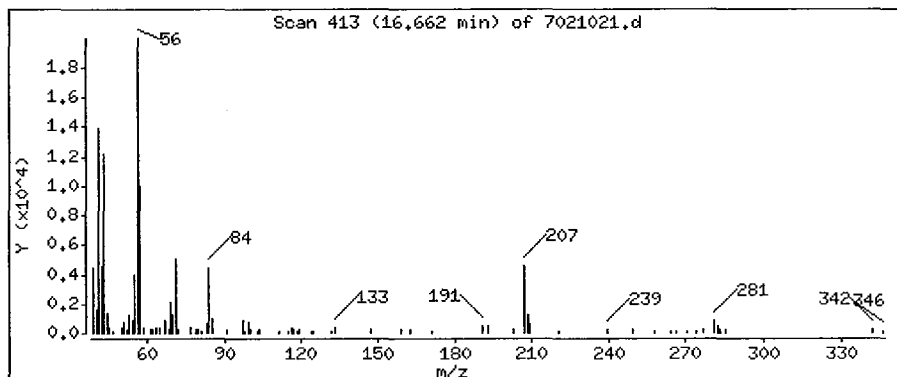
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.2509 PPBV



0175

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

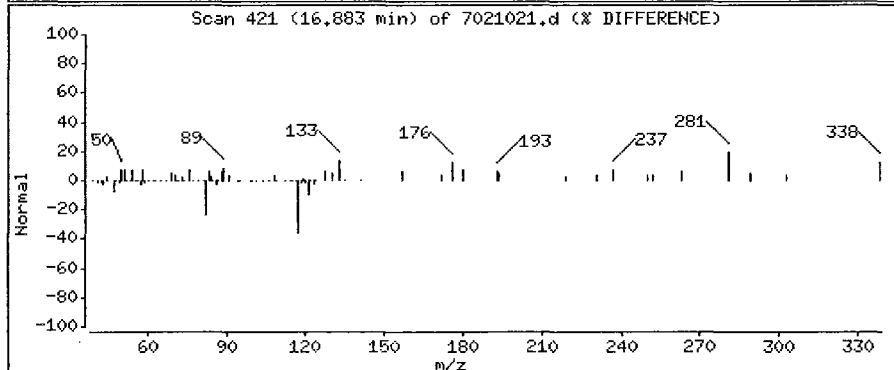
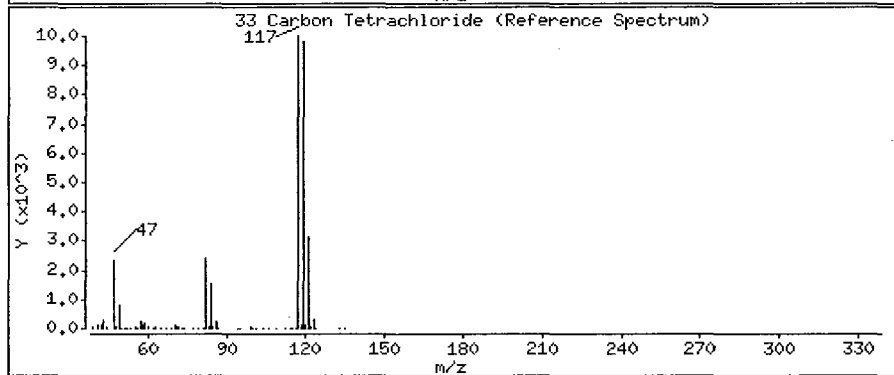
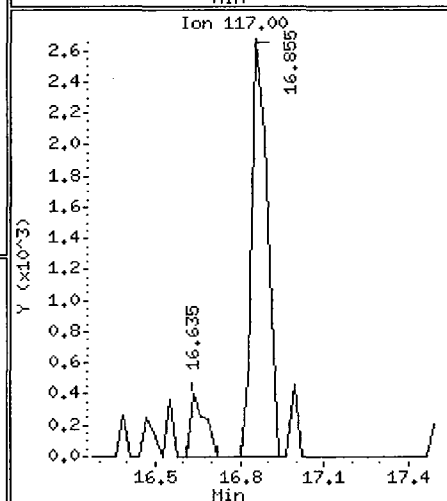
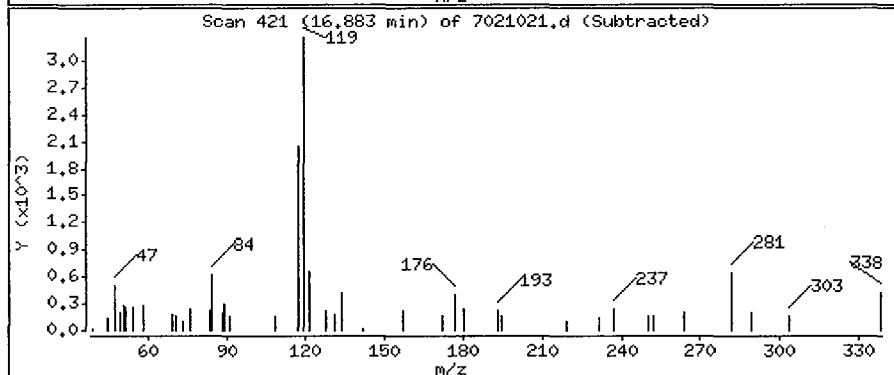
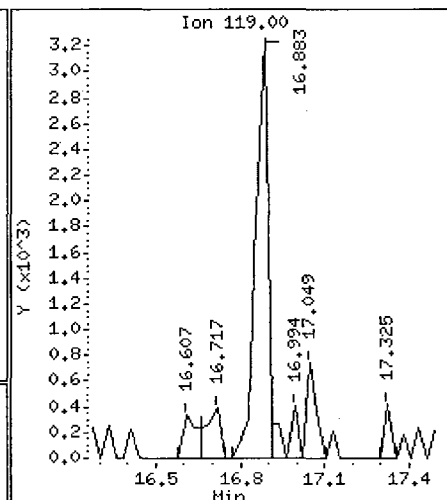
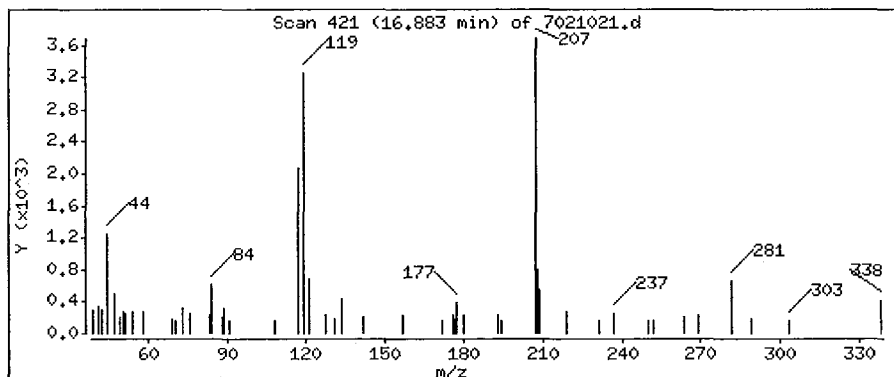
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1104 PPBV



0176

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

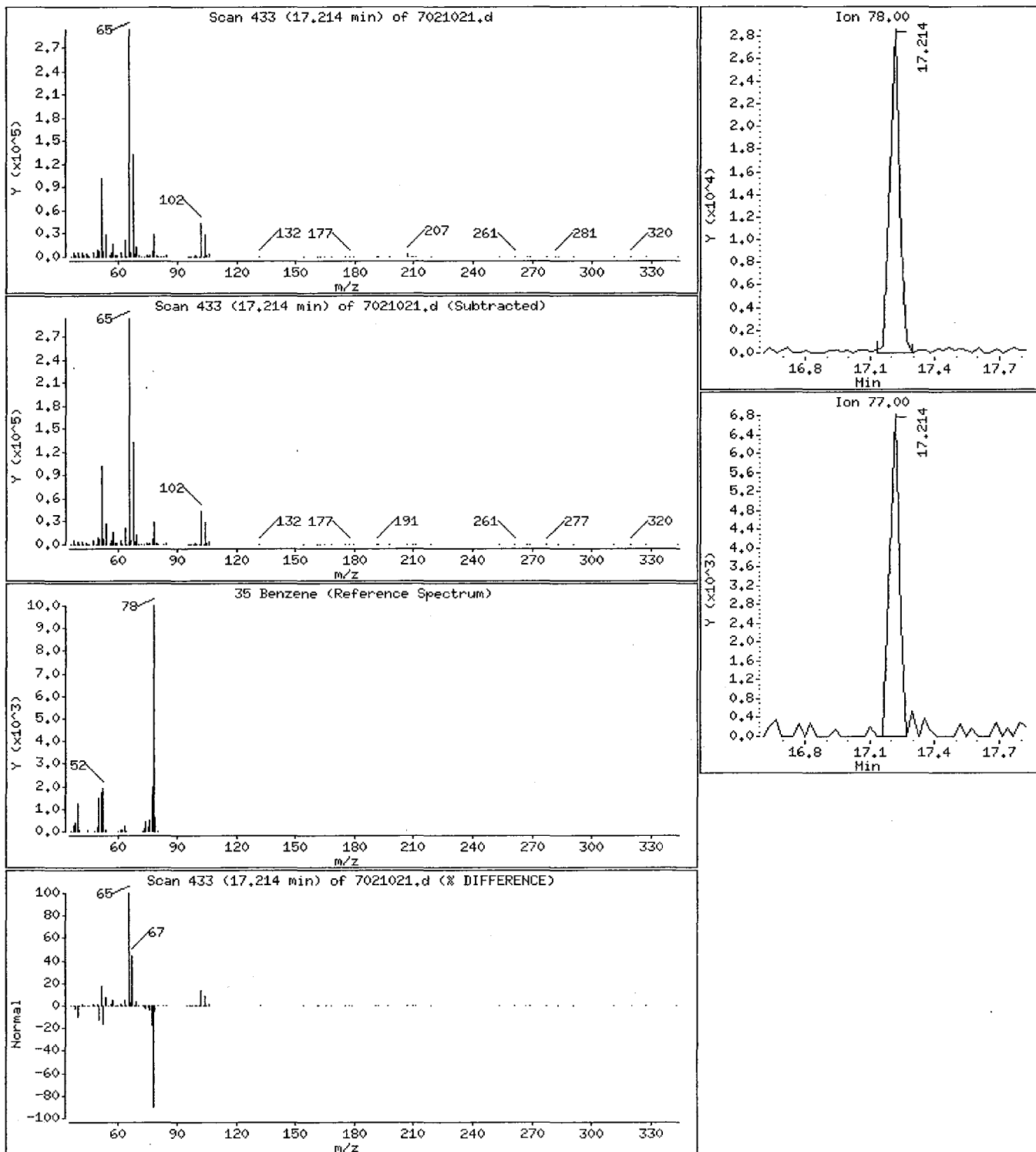
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.5620 PPBV



0177

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

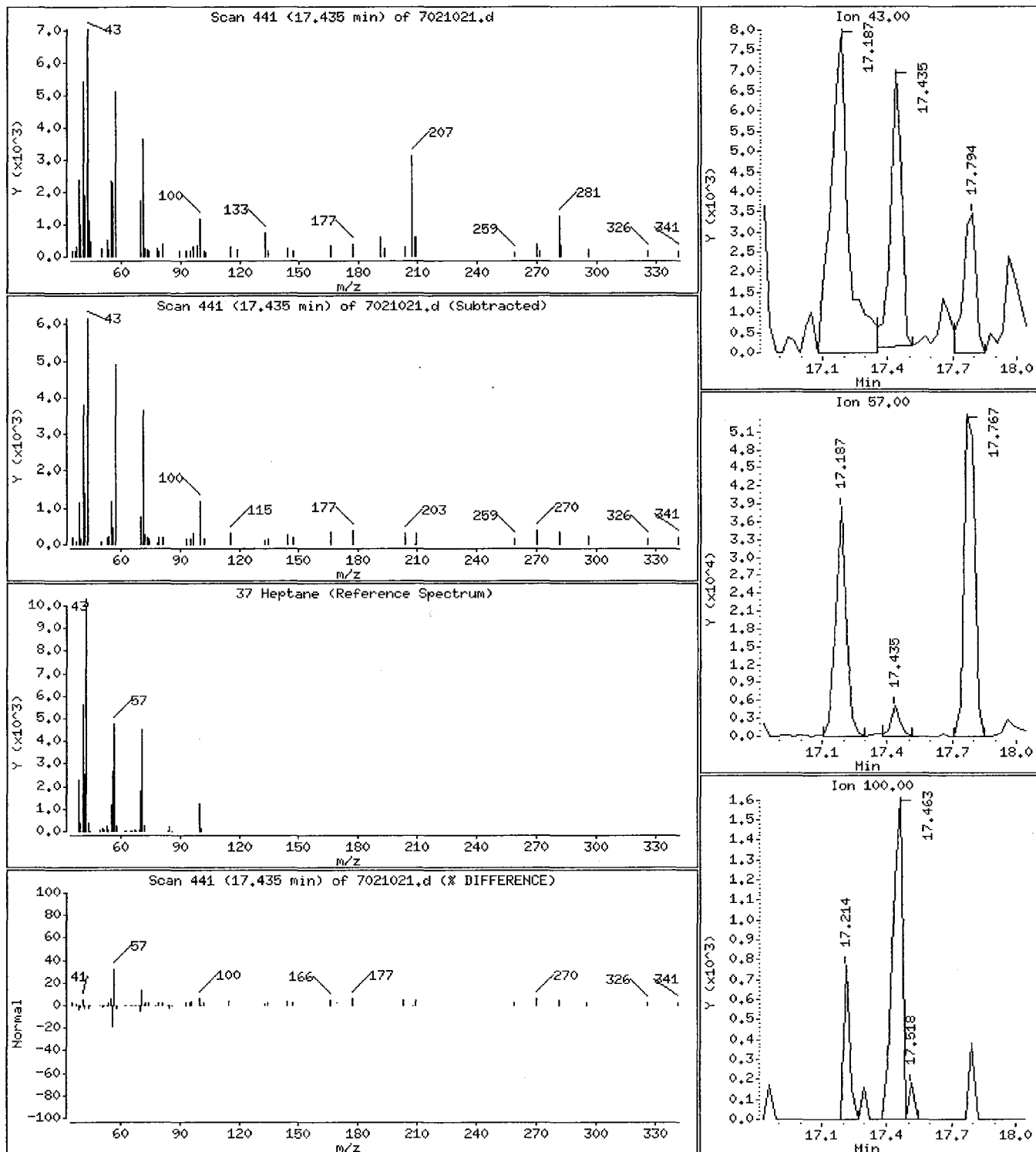
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.2676 PPBV



0178

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

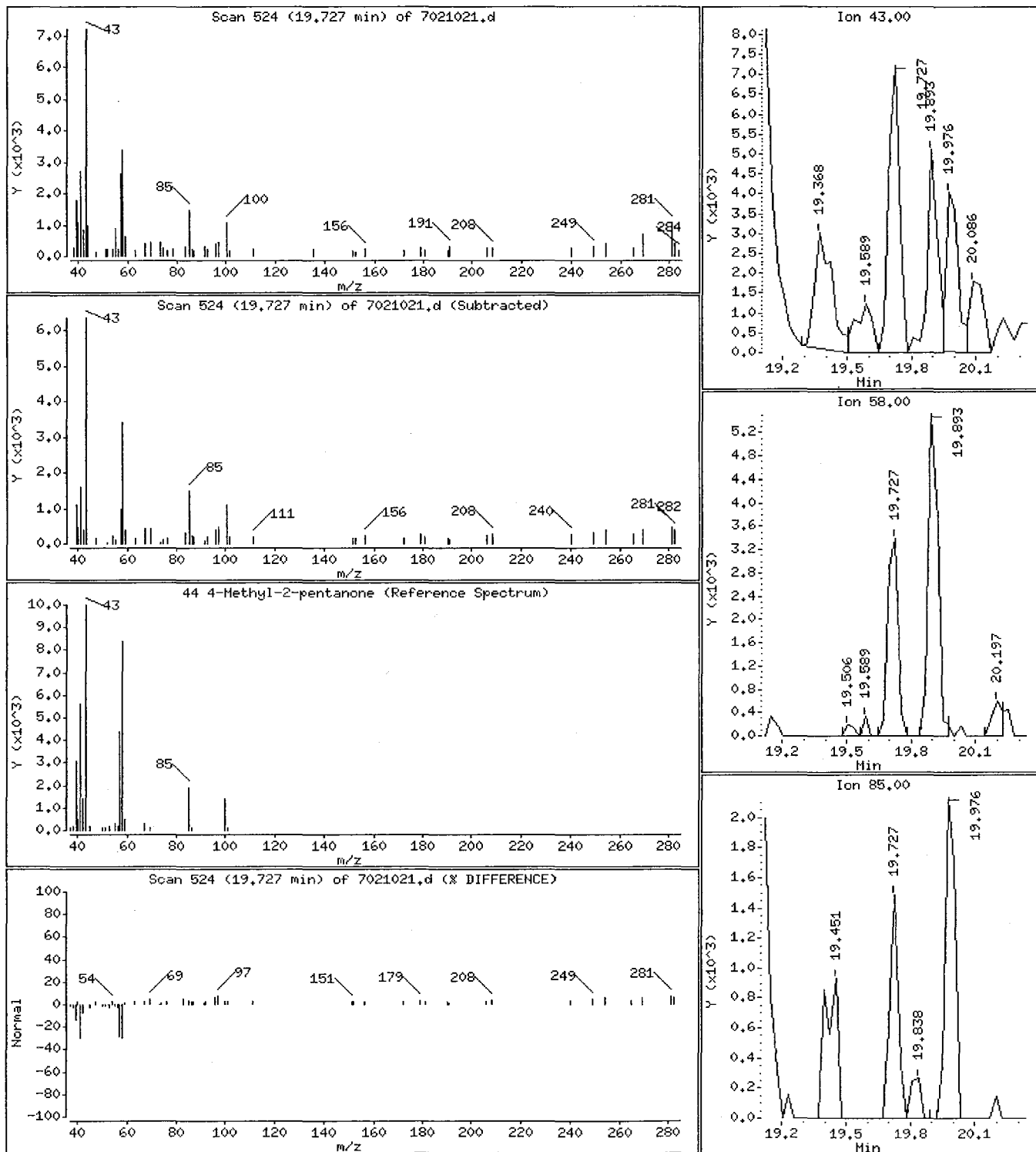
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.2560 PPBV



0179

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

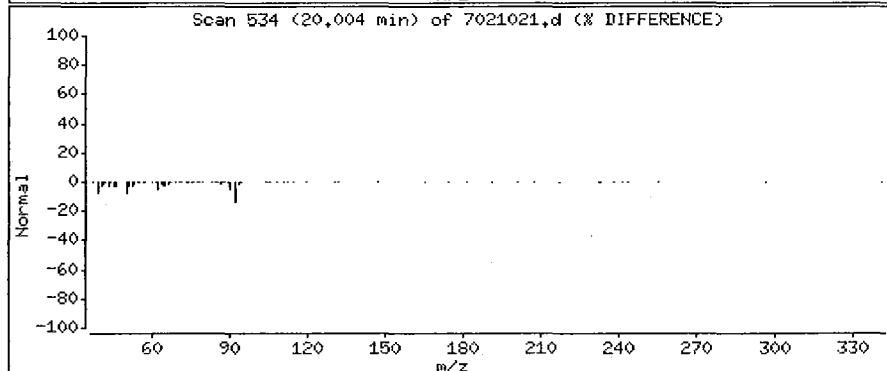
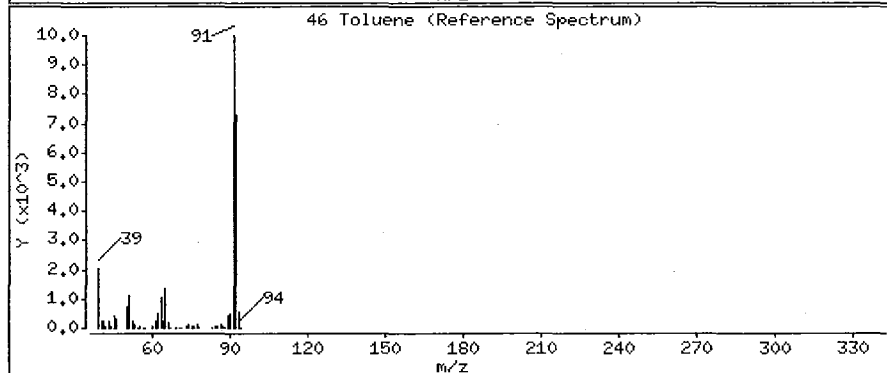
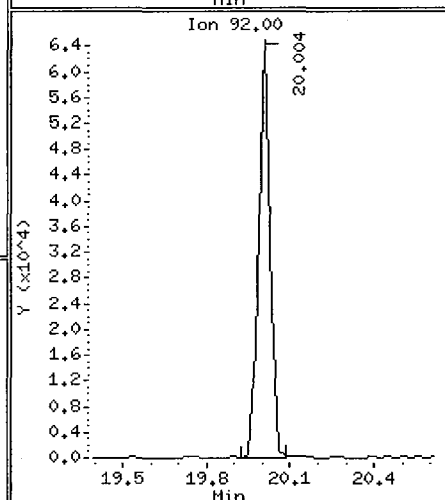
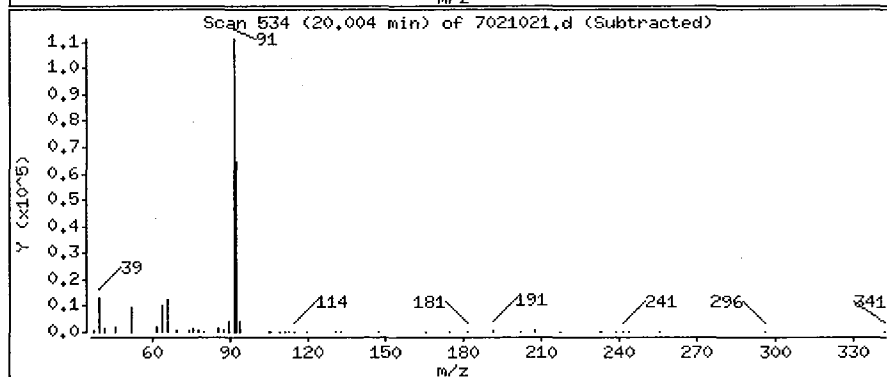
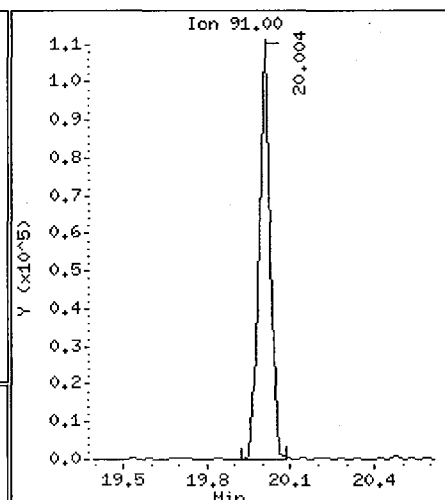
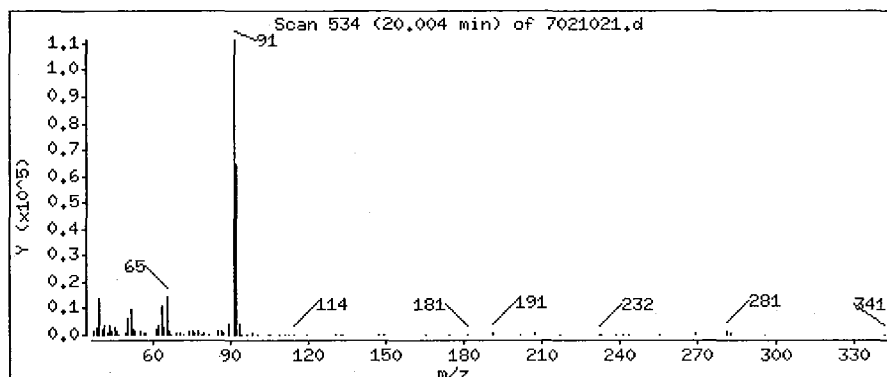
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 1.688 PPBV



0180

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

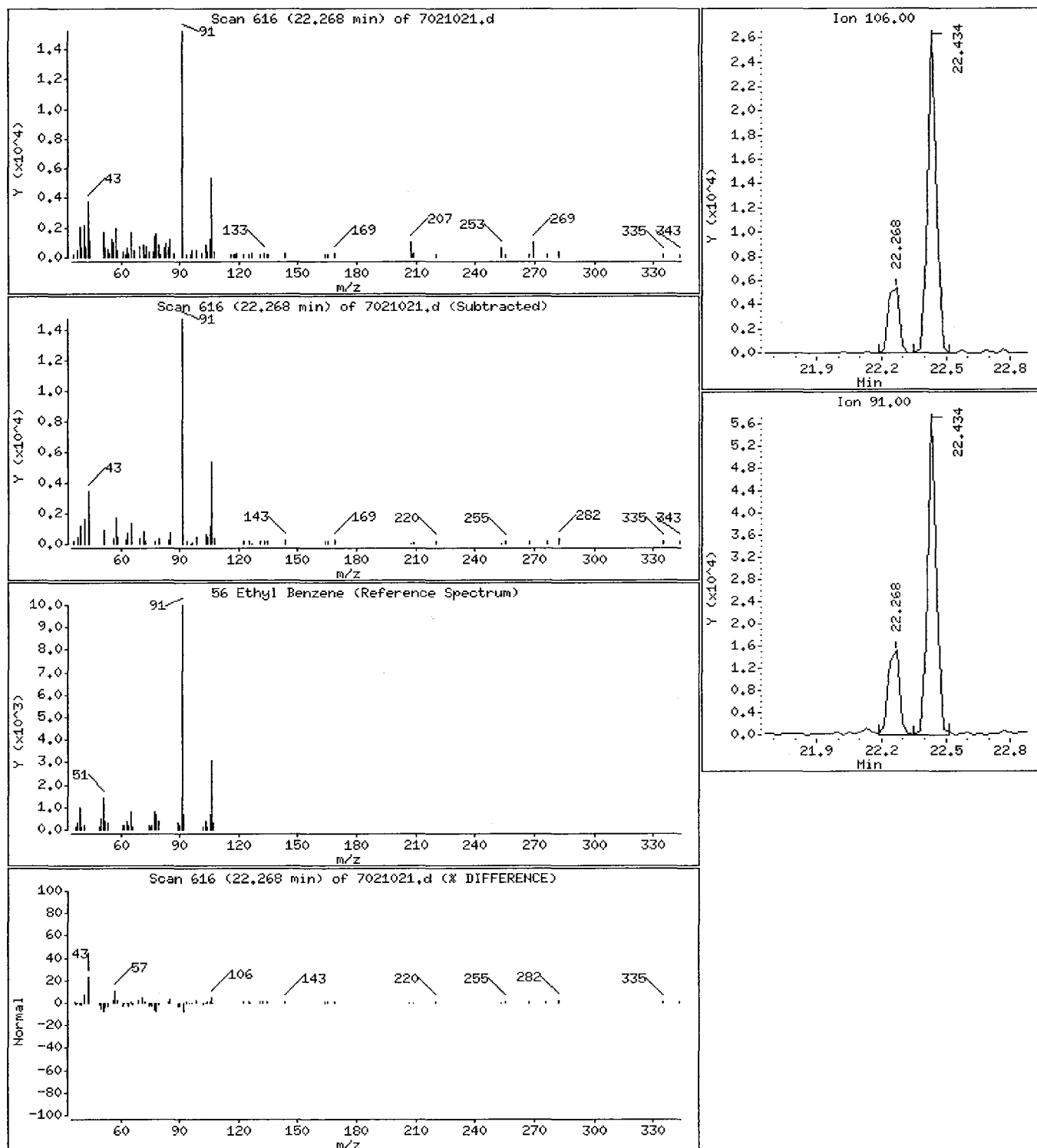
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.3015 PPBV



0181

Date: 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

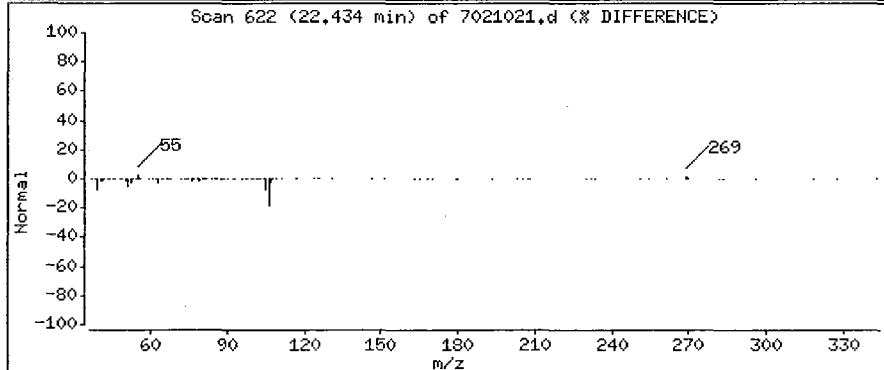
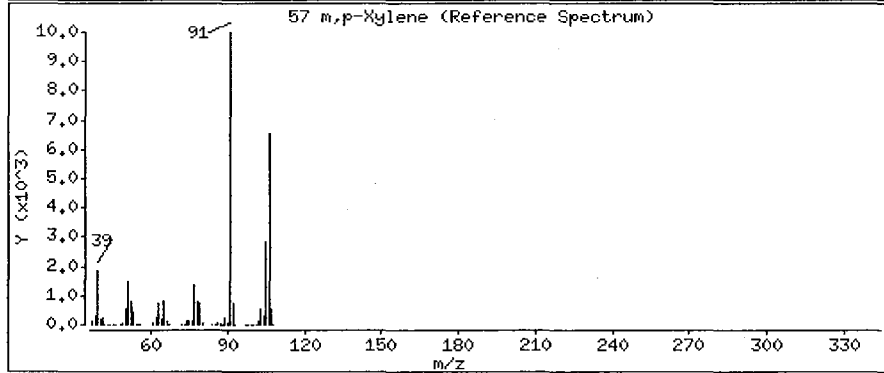
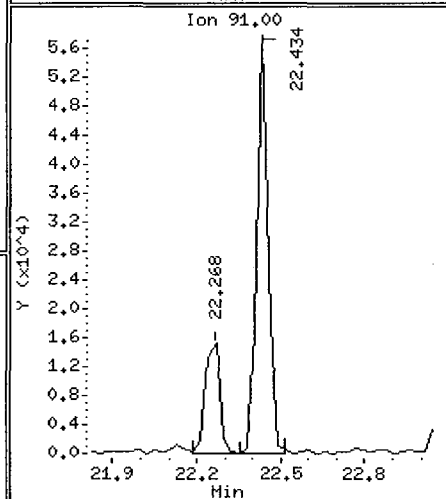
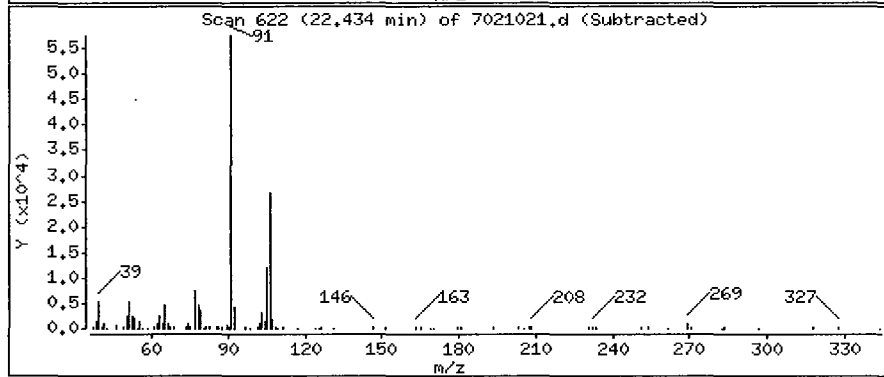
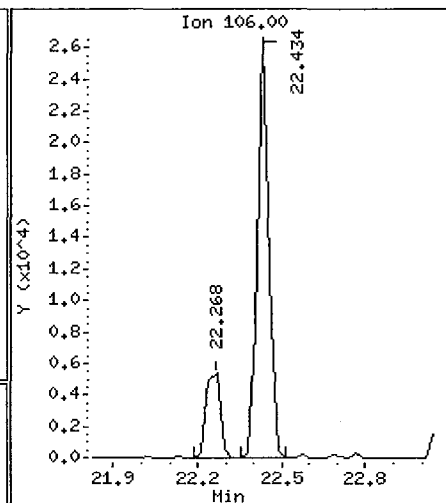
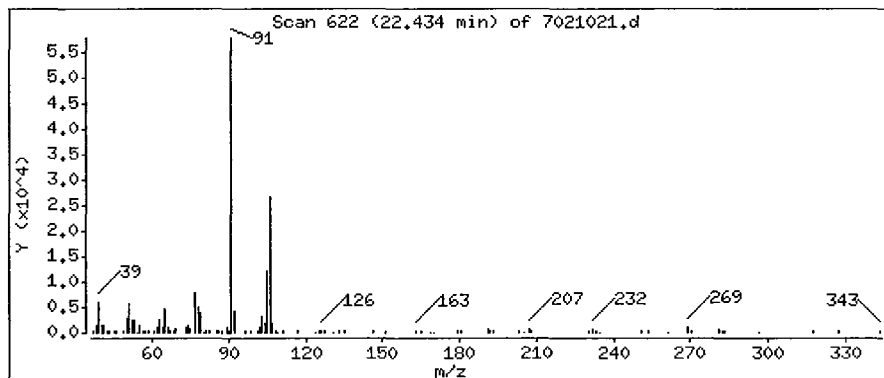
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 0.9665 PPBV



0182

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

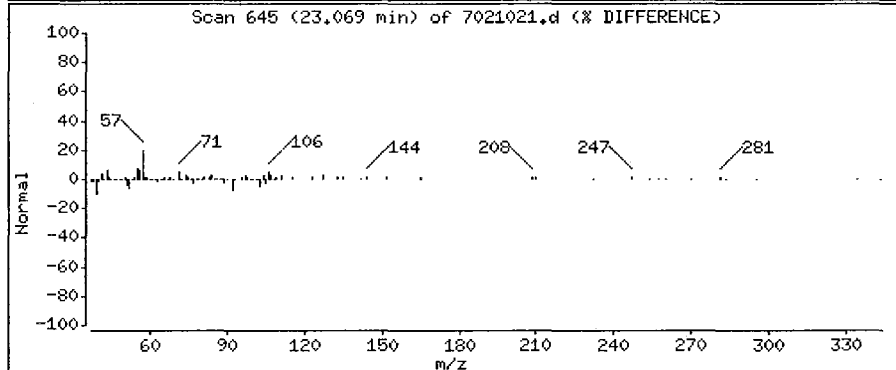
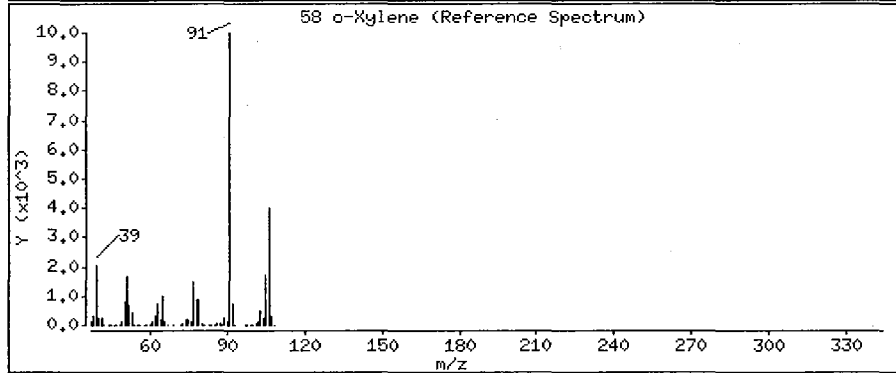
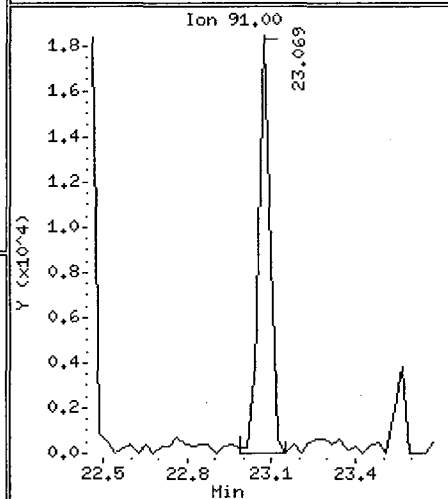
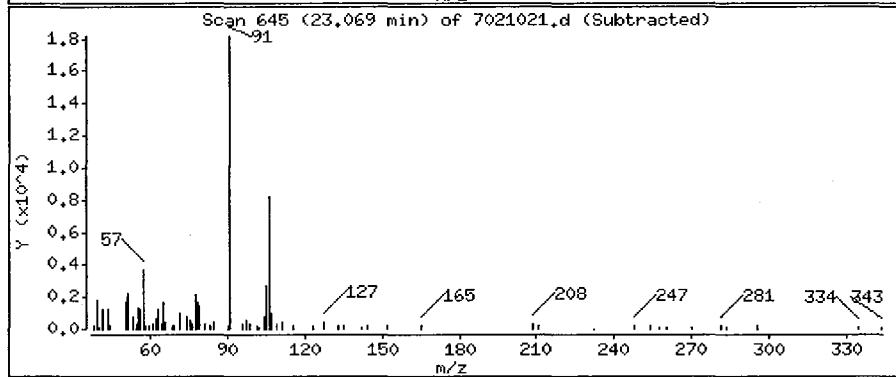
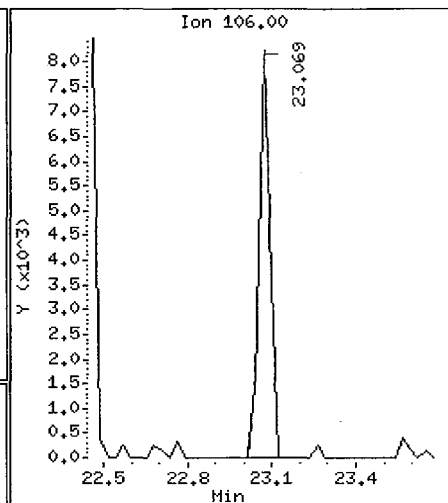
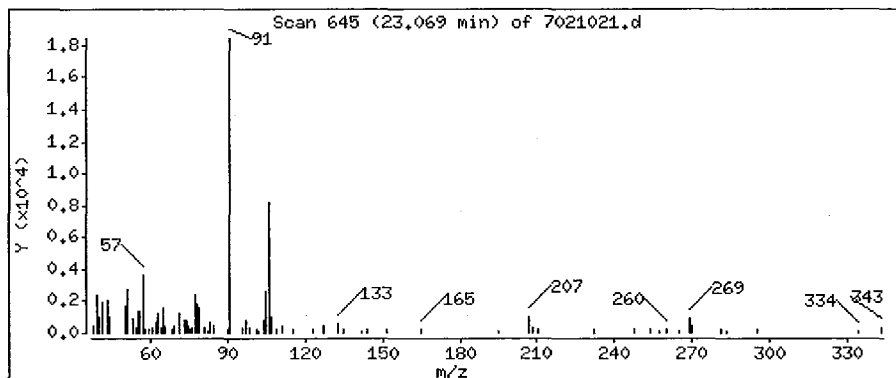
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.3577 PPBV



0183

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

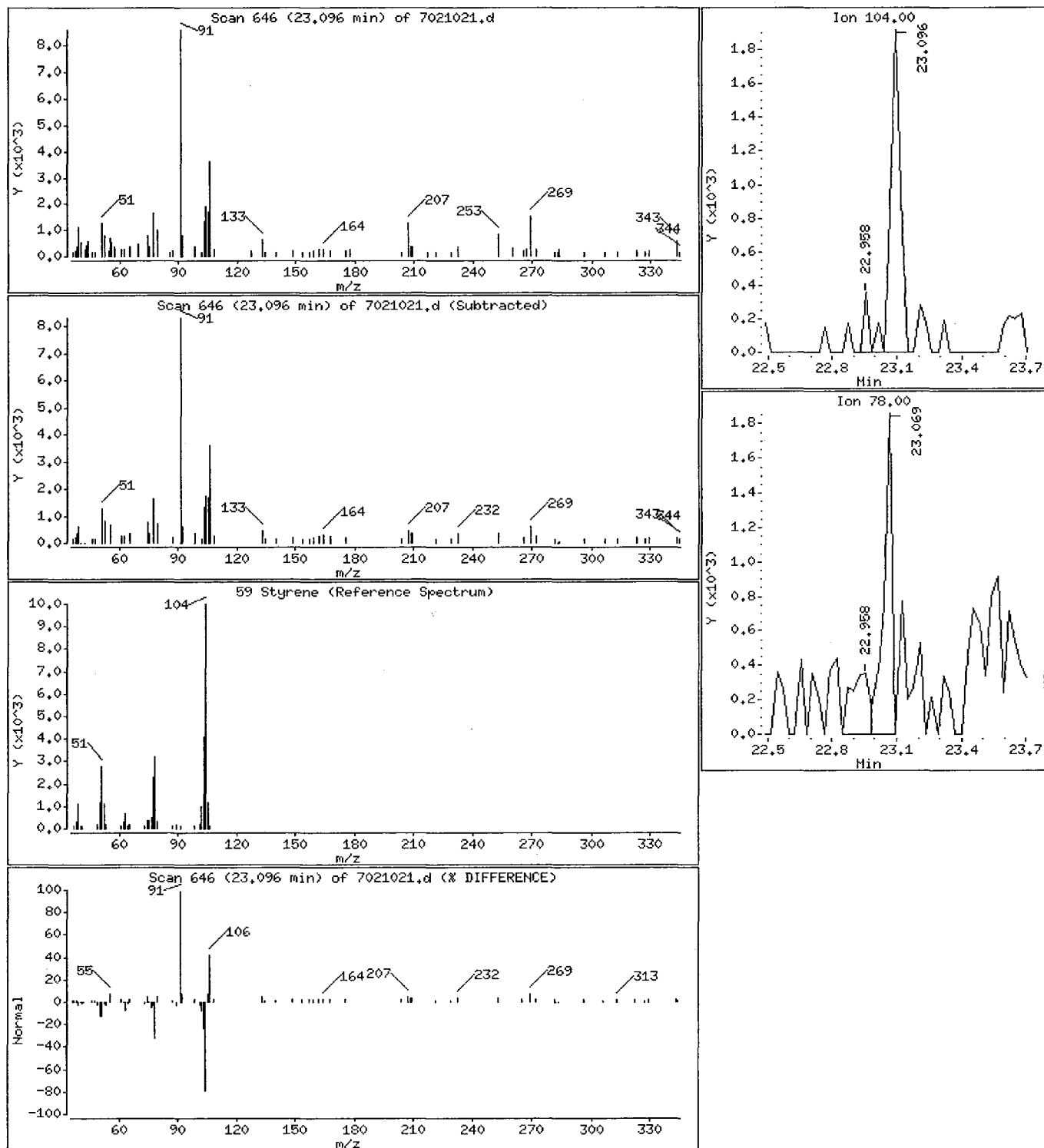
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.06056 PPBV



0184

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

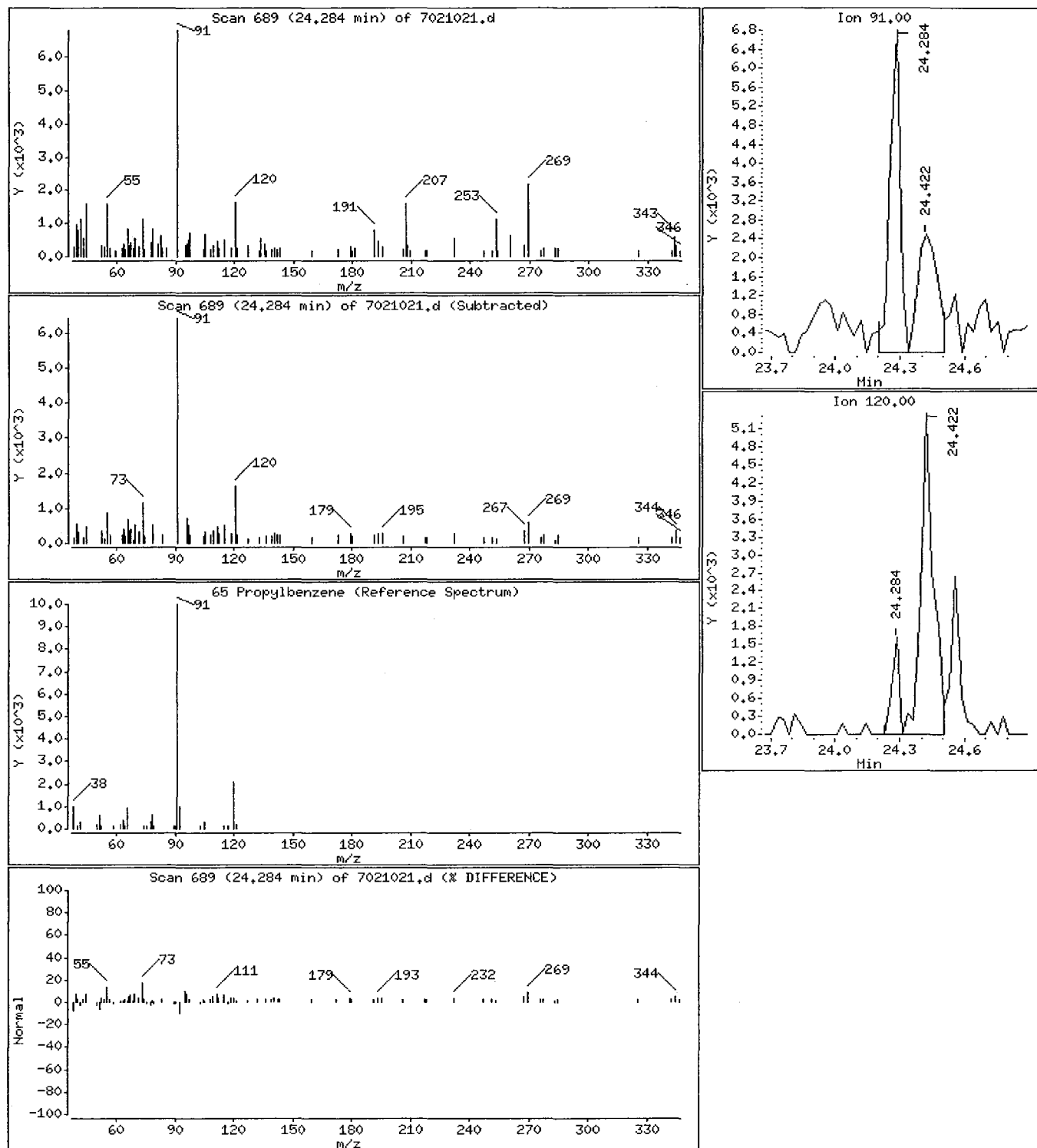
Operator: WW

Column phase: RTx-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1082 PPBV



0185

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

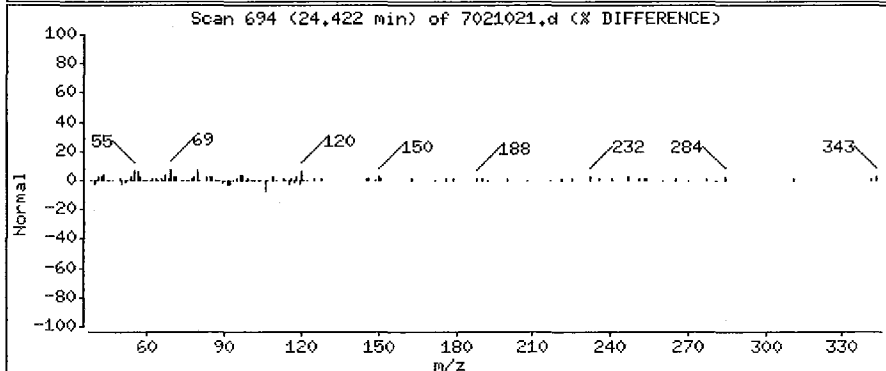
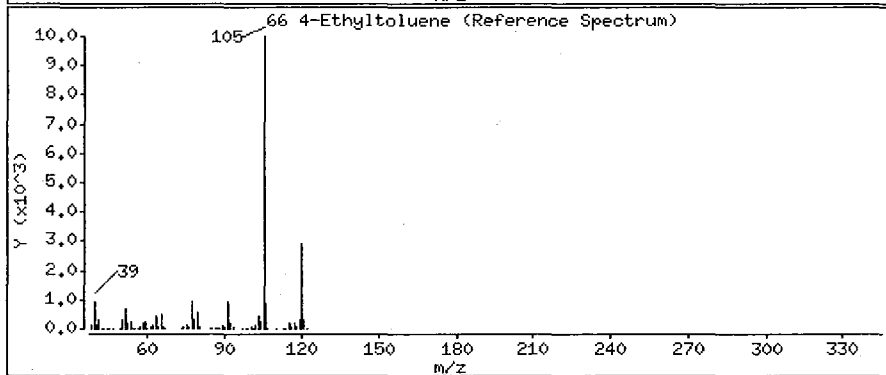
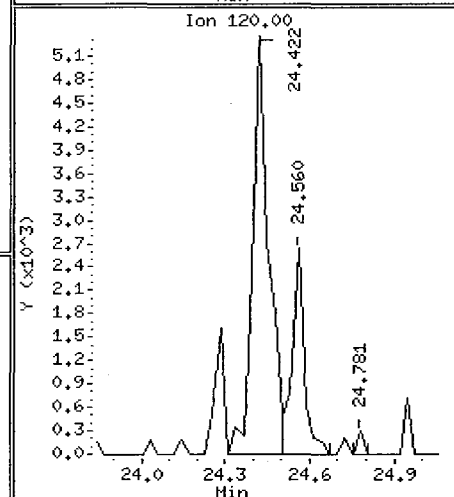
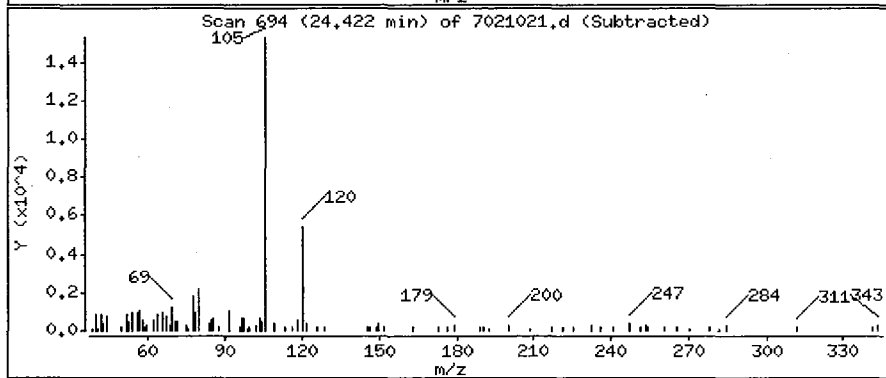
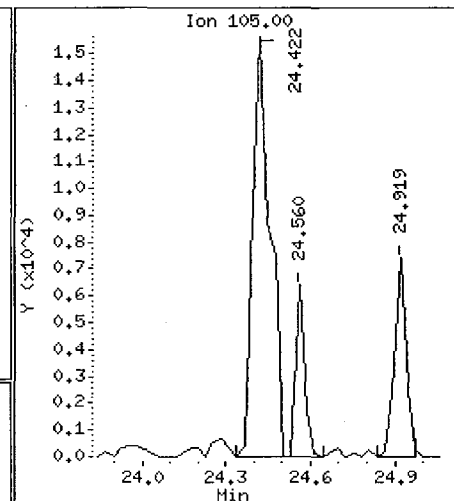
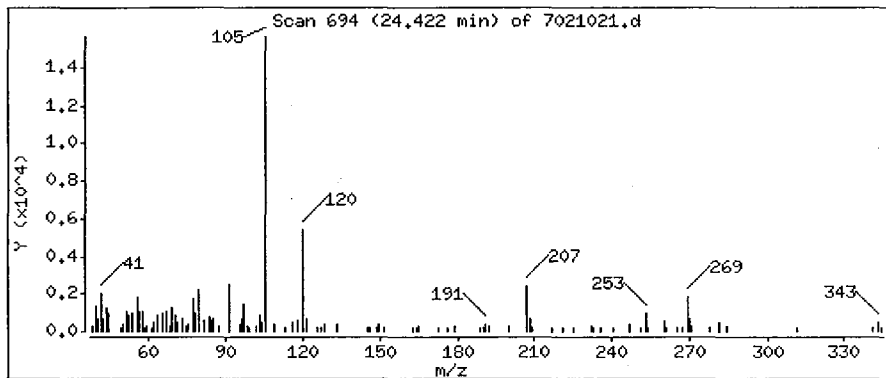
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.4184 PPBV



0186

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

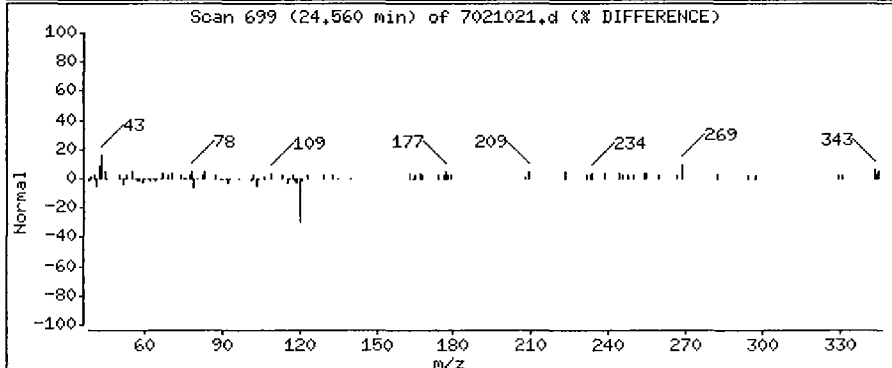
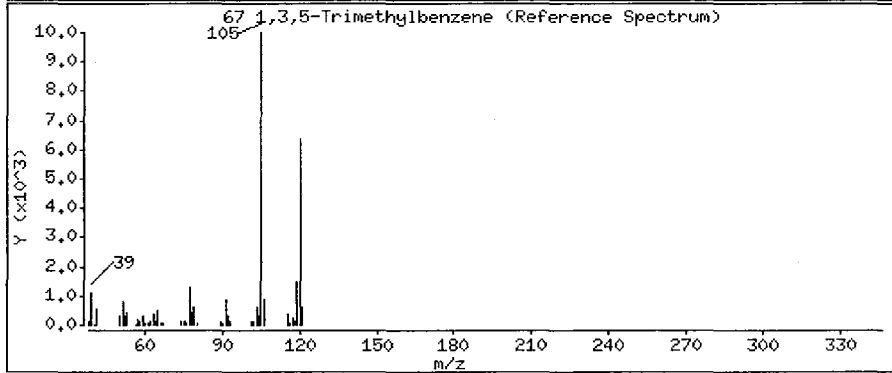
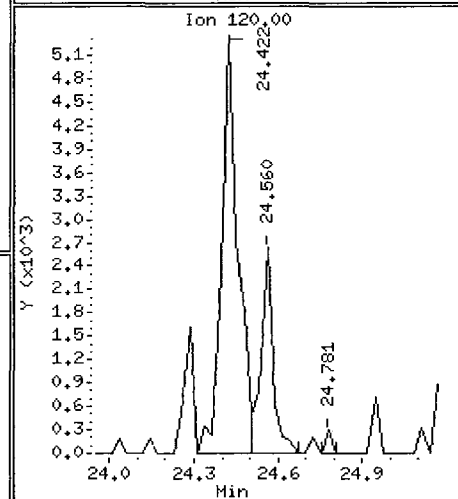
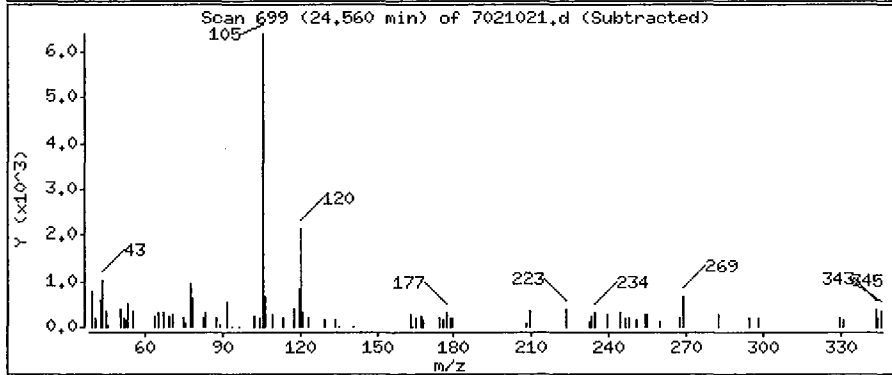
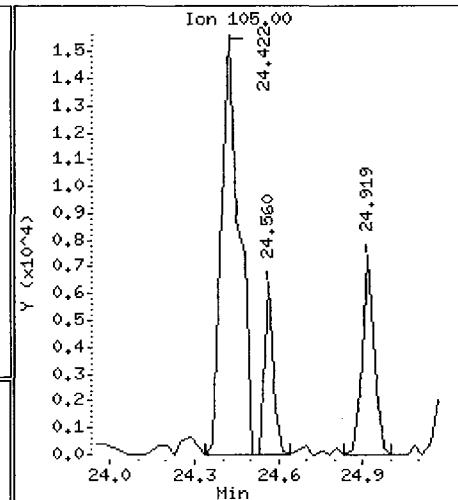
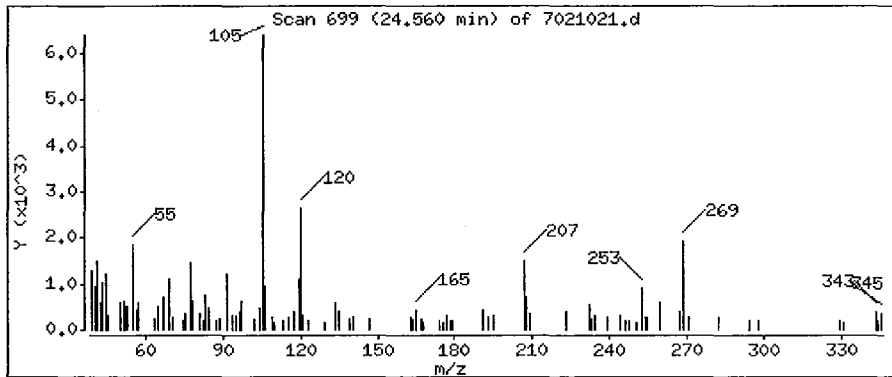
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.09378 PPBV



0187

Date : 11-FEB-2005 00:09

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#10777

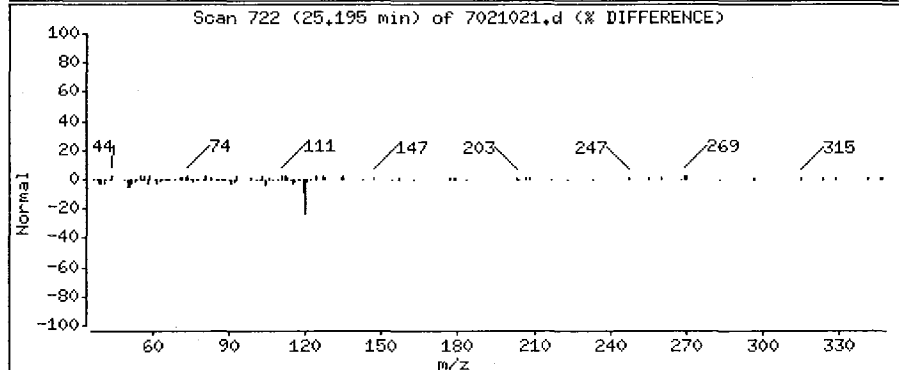
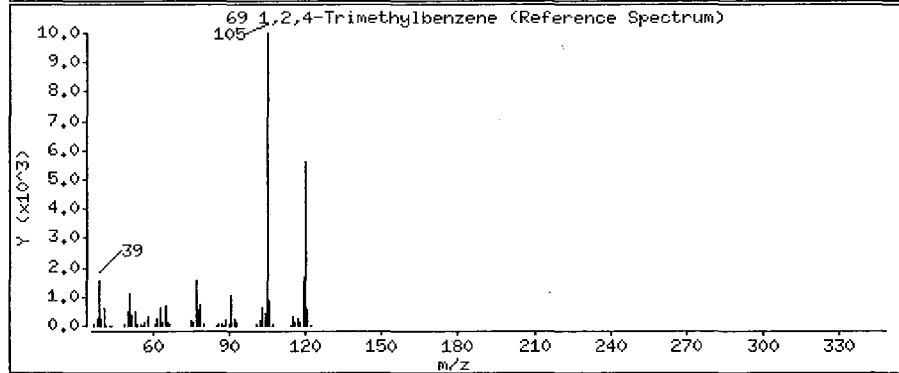
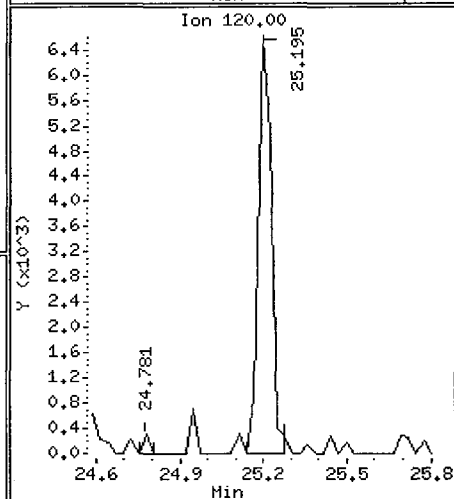
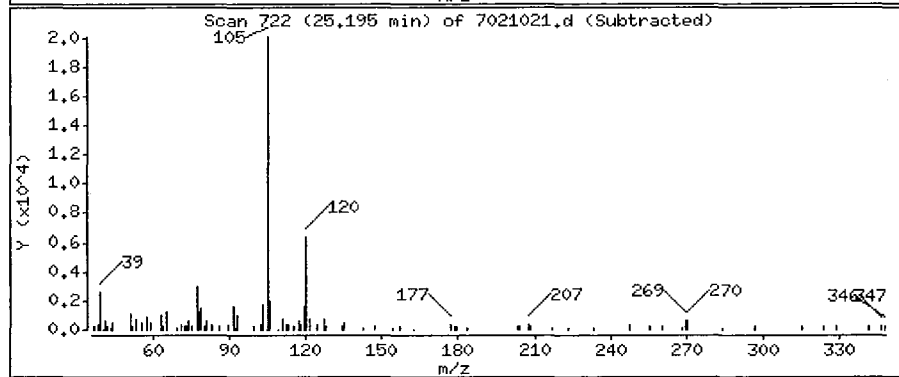
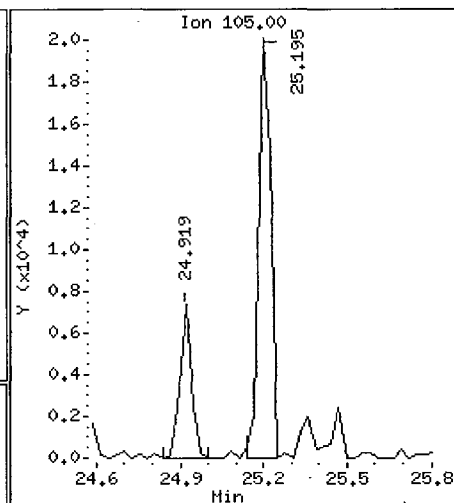
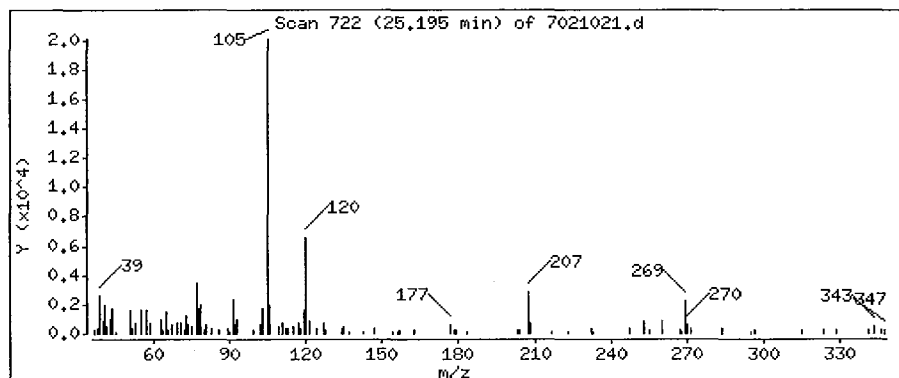
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.4441 PPEV



0188

AIR TOXICS LTD.

SAMPLE NAME: #6, Fab 2, SubFab, Office

ID#: 0502032-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020708	Date of Collection:	1/25/05
Dil. Factor:	1.79	Date of Analysis:	2/8/05 04:02 AM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.69	0.88	3.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.42	0.37	0.86
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
Bromomethane	0.18	Not Detected	0.70	Not Detected
Chloroethane	0.18	Not Detected	0.47	Not Detected
Freon 11	0.18	0.61	1.0	3.4
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Freon 113	0.18	0.12 J	1.4	0.91 J
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Chloroform	0.18	Not Detected	0.87	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Carbon Tetrachloride	0.18	0.11 J	1.1	0.67 J
Benzene	0.18	0.69	0.57	2.2
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
Toluene	0.18	3.2	0.67	12
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.30	0.78	1.3
m,p-Xylene	0.18	1.0	0.78	4.4
o-Xylene	0.18	0.41	0.78	1.8
Styrene	0.18	0.096 J	0.76	0.41 J
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	0.14 J	0.88	0.68 J
1,2,4-Trimethylbenzene	0.18	0.41	0.88	2.0
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
Methylene Chloride	0.36	0.30 J	1.2	1.0 J
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
1,3-Butadiene	0.90	Not Detected	2.0	Not Detected
Acetone	0.90	4.9	2.1	12
Carbon Disulfide	0.90	0.11 J	2.8	0.33 J

AIR TOXICS LTD.

SAMPLE NAME: #6, Fab 2, SubFab, Office

ID#: 0502032-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020708	Date of Collection:	1/25/05
Dil. Factor:	1.79	Date of Analysis:	2/8/05 04:02 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.90	190 E	2.2	470 E
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	0.85 J	2.6	2.5 J
Hexane	0.90	0.59 J	3.2	2.1 J
Tetrahydrofuran	0.90	0.17 J	2.6	0.50 J
Cyclohexane	0.90	0.21 J	3.1	0.72 J
1,4-Dioxane	0.90	Not Detected	3.2	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	0.90	0.43 J	3.7	1.8 J
2-Hexanone	0.90	Not Detected	3.7	Not Detected
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
4-Ethyltoluene	0.90	0.44 J	4.4	2.2 J
Ethanol	0.90	7.3	1.7	14
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
Heptane	0.90	0.33 J	3.7	1.4 J
Cumene	0.90	Not Detected	4.4	Not Detected
Propylbenzene	0.90	0.086 J	4.4	0.42 J
Naphthalene	0.90	Not Detected	4.7	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020708.d
Lab Smp Id: 0502032-06A
Inj Date : 08-FEB-2005 04:02
Operator : WW Inst ID: msd7.i
Smp Info : 500mL Can#32130
Misc Info : 7.5"Hg-5psi Clayton
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 11-Feb-2005 15:58 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.79000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	490873	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	377401			26.96- 126.96	76.88	
16.331	16.331	(1.000)	49	851837			126.50- 226.50	173.54	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2235289	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	378249			0.00- 66.78	16.92	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1594832	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	936934			9.26- 109.26	58.75	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	1011593	10.0058	10.006	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	464392			0.17- 100.17	45.91	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1839004	9.64333	9.643	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	229564			0.00- 62.42	12.48	

0191

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1333638			21.00- 121.00	72.52

\$ 63 Bromofluorobenzene			CAS #: 460-00-4					
23.953	23.953	(1.082)	174	871002	10.5721	10.572	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1333081			103.23- 203.23	153.05
23.953	23.953	(1.082)	176	844228			46.33- 146.33	96.93

1 Dichlorodifluoromethane/Fr12			CAS #: 75-71-8					
5.947	5.947	(0.364)	85	153101	0.38478	0.6888	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	48235			0.00- 82.62	31.51

4 Chloromethane			CAS #: 74-87-3					
7.356	7.356	(0.450)	50	26687	0.23265	0.4164	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	10533			0.00- 84.65	39.47

10 Trichlorofluoromethane/Fr11			CAS #: 75-69-4					
11.056	11.056	(0.677)	101	117553	0.33976	0.6082	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	72764			13.43- 113.43	61.90

12 Ethanol			CAS #: 64-17-5					
12.050	12.050	(0.738)	45	196955	4.05577	7.260	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	44830			0.00- 76.71	22.76
12.050	12.050	(0.738)	46	76795			0.00- 90.17	38.99

15 Freon 113			CAS #: 76-13-1					
12.547	12.547	(0.768)	151	9491	0.06637	0.1188	80.00- 120.00	100.00(a)
12.520	12.547	(0.767)	153	3373			13.12- 113.12	35.54
12.547	12.547	(0.768)	101	9091			83.72- 183.72	95.79

16 Acetone			CAS #: 67-64-1					
12.851	12.824	(0.787)	43	710415	2.74654	4.916	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	200044			0.00- 78.78	28.16

18 2-Propanol			CAS #: 67-63-0					
13.238	13.238	(0.811)	45	26173766	107.057	191.63	80.00- 120.00	100.00(A)
13.238	13.238	(0.811)	43	4704176			0.00- 69.75	17.97
13.238	13.238	(0.811)	59	904484			0.00- 53.72	3.46

17 Carbon Disulfide			CAS #: 75-15-0					
12.906	12.906	(0.790)	76	19050	0.05930	0.1061	80.00- 120.00	100.00(a)

20 Methylene Chloride			CAS #: 75-09-2					
13.735	13.735	(0.841)	84	17060	0.16666	0.2983	80.00- 120.00	100.00(a)
13.735	13.735	(0.841)	49	24169			102.91- 202.91	141.67
13.735	13.735	(0.841)	51	11872			0.00- 93.42	69.59

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	64122	0.33059	0.5918	80.00- 120.00	100.00(a)	
14.563	14.563	(0.892)	43	59313			15.23- 115.23	92.50	
14.563	14.563	(0.892)	86	7922			0.00- 65.23	12.35	
28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	25530	0.47630	0.8526	80.00- 120.00	100.00(a)	
15.972	15.972	(0.978)	43	151744			1005.34-1105.34	594.37	
15.972	15.972	(0.978)	57	7365			0.00- 89.21	28.85	
23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	14134	0.09503	0.1701	80.00- 120.00	100.00(a)	
16.331	16.331	(1.000)	71	6433			0.00- 82.81	45.51	
16.358	16.331	(1.002)	72	2024			0.00- 86.54	14.32	
31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	12603	0.11751	0.2104	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	33828			93.37- 193.37	268.41	
16.662	16.662	(1.020)	41	24187			30.80- 130.80	191.92	
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.855	16.883	(1.032)	119	10454	0.05931	0.1062	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	11736			63.50- 163.50	112.27	
35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	125908	0.38812	0.6947	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	28341			0.00- 72.07	22.51	
37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	35119	0.18541	0.3319	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	20731			1.42- 101.42	59.03	
17.435	17.435	(0.980)	100	5370			0.00- 66.93	15.29	
44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	50456	0.24079	0.4310	80.00- 120.00	100.00(a)	
19.727	19.727	(1.109)	58	15144			0.00- 87.49	30.01	
19.727	19.727	(1.109)	85	7001			0.00- 66.91	13.88	
46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	671794	1.80758	3.236	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	414349			11.80- 111.80	61.68	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	22134	0.16904	0.3026	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	79050			294.68- 394.68	357.14	

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	90542	0.56536	1.012	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	204375			168.06- 268.06	225.72	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	29585	0.22684	0.4060	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	70685			176.46- 276.46	238.92	

59 Styrene						CAS #: 100-42-5			
23.096	23.097	(1.044)	104	10858	0.05378	0.09627	80.00- 120.00	100.00(a)	
23.069	23.097	(1.042)	78	9561			6.85- 106.85	88.05	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	20957	0.04810	0.08610	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	4011			0.00- 69.13	19.14	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	85275	0.24540	0.4392	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	21801			0.00- 74.43	25.57	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	23700	0.07687	0.1376	80.00- 120.00	100.00(a)	
24.560	24.560	(1.110)	120	8541			0.00- 89.22	36.04	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	67948	0.23038	0.4124	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	27454			0.00- 87.29	40.41	

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020708.d
Lab Smp Id: 0502032-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m
Misc Info: 7.5"Hg-5psi Clayton

Calibration Date: 08-FEB-2005
Calibration Time: 01:00
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	542490	325494	759486	490873	-9.51
38 1,4-Difluorobenze	2679294	1607576	3751012	2235289	-16.57
54 Chlorobenzene-d5	1721557	1032934	2410180	1594832	-7.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 11-Feb-2005 16:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-07feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-06A
Level: LOW Operator: WW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m
Misc Info: 7.5"Hg-5psi Clayton

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.006	100.06	70-130
\$ 45 Toluene-d8	10.000	9.643	96.43	70-130
\$ 63 Bromofluorobenzene	10.000	10.572	105.72	70-130

0196

SCOEPAA00031868

Date : 08-FEB-2005 04:02

Client ID:

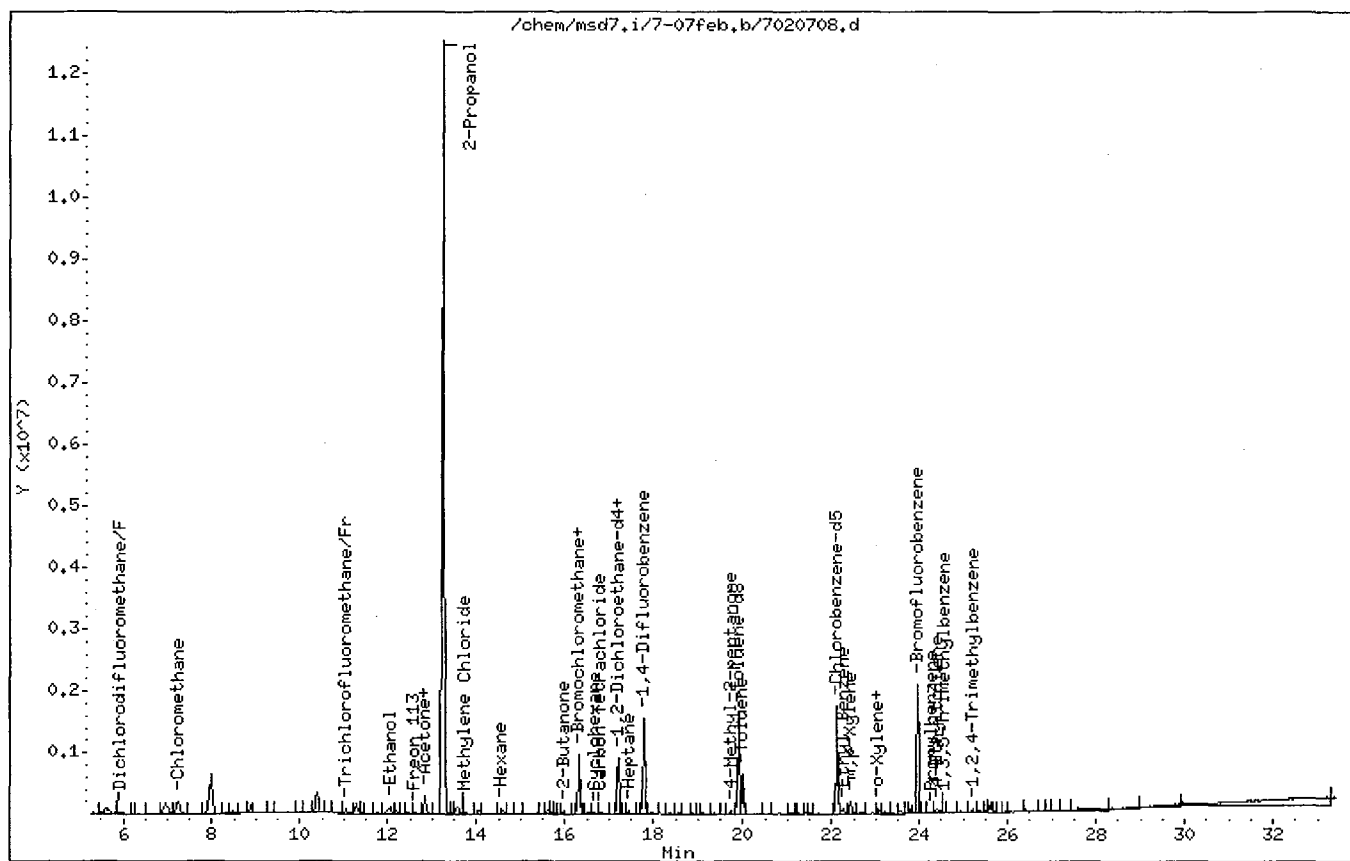
Instrument: msd7.i

Sample Info: 500mL Can#32130

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0197

SCOEPAA00031869

Data File: /chem/msd7.i/7-07feb,b/7020708.d

Page 2

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

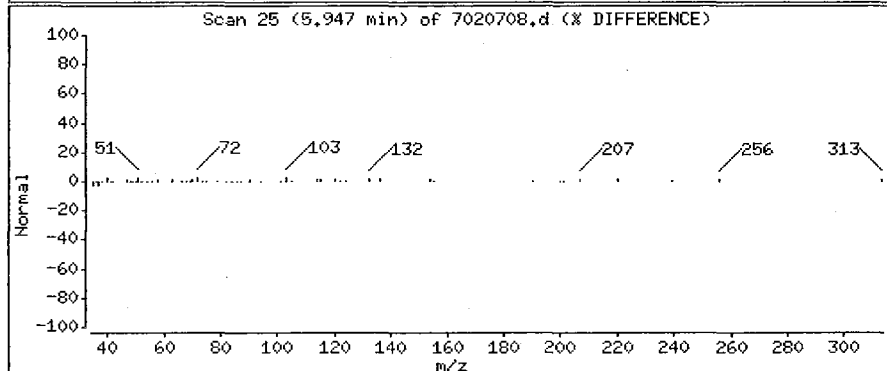
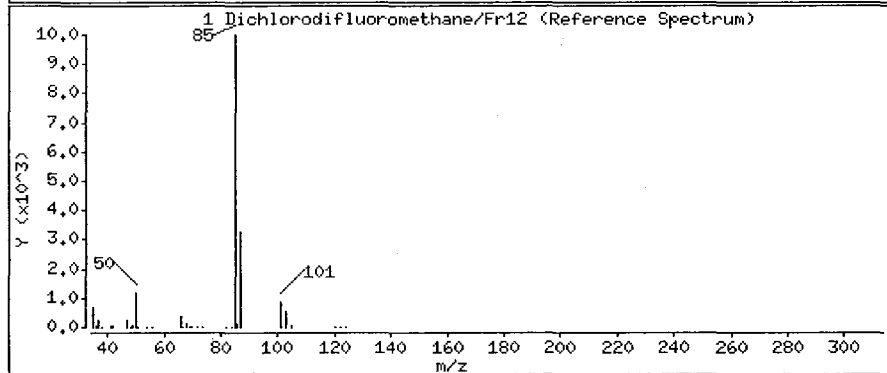
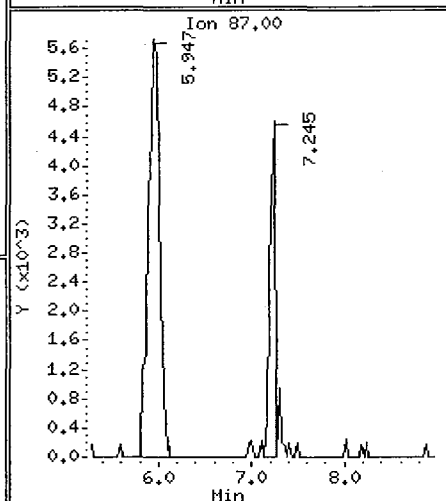
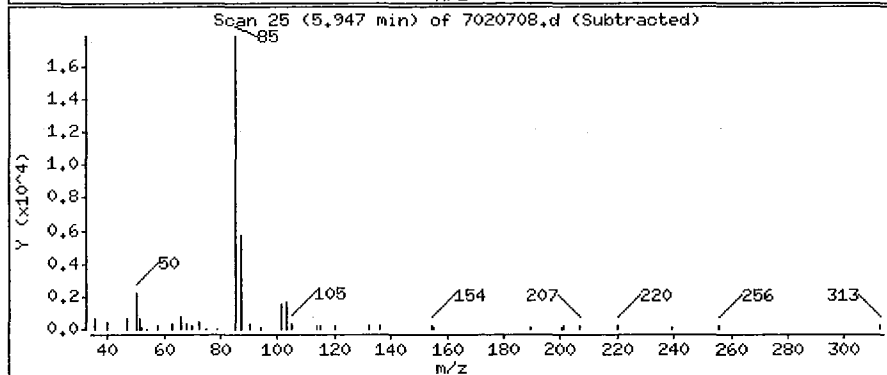
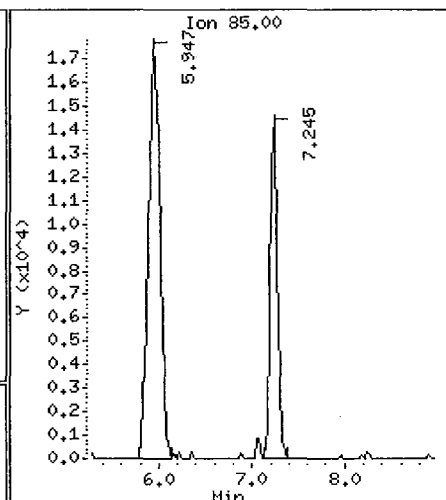
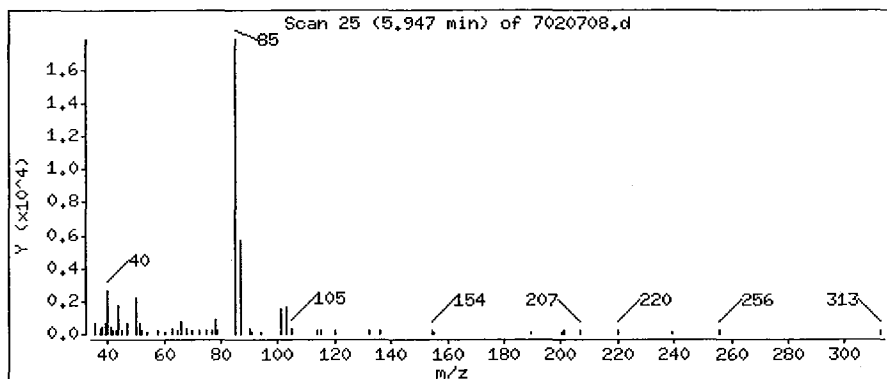
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.6888 PPBV



0198

SCOEPAA00031870

Data File: /chem/msd7.i/7-07feb.b/7020708.d

Page 3

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

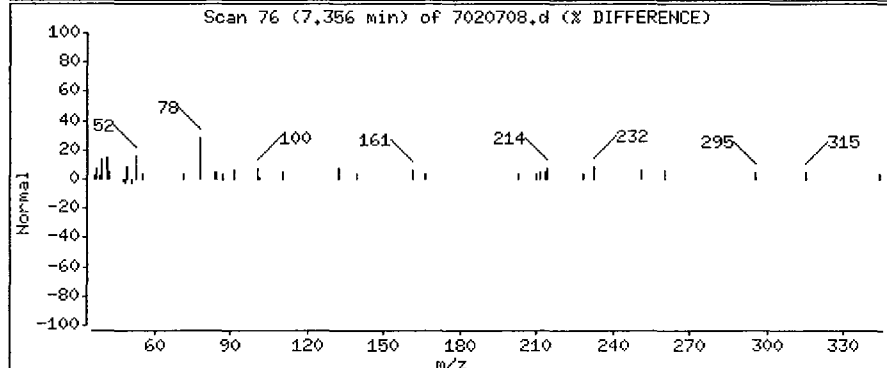
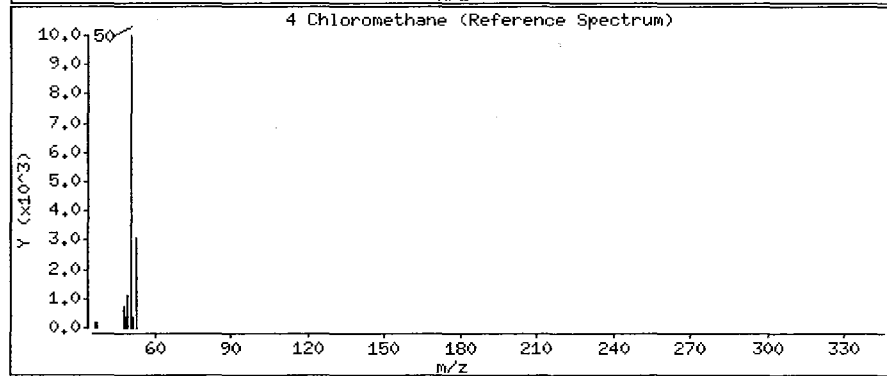
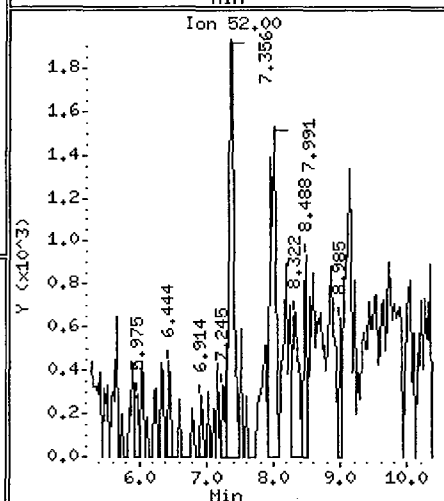
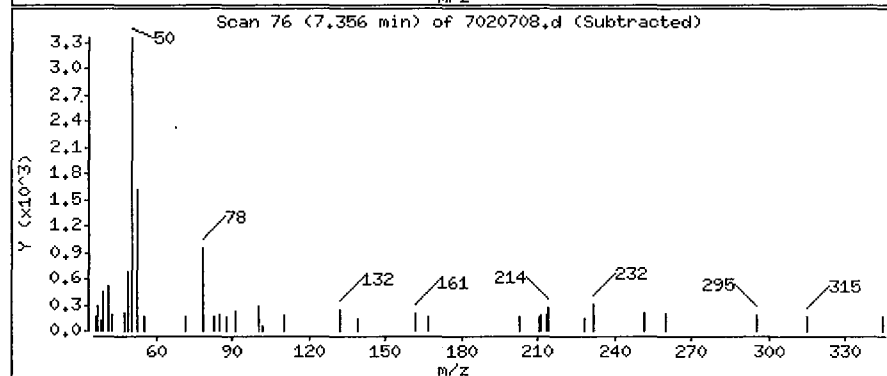
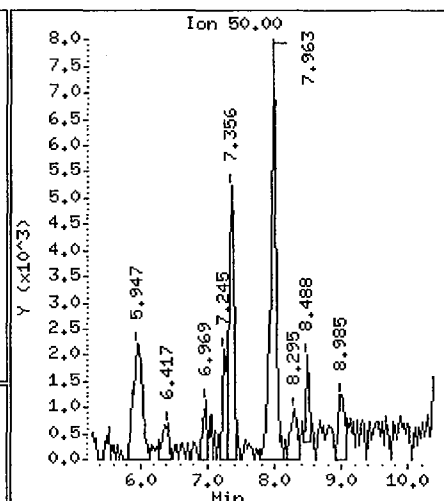
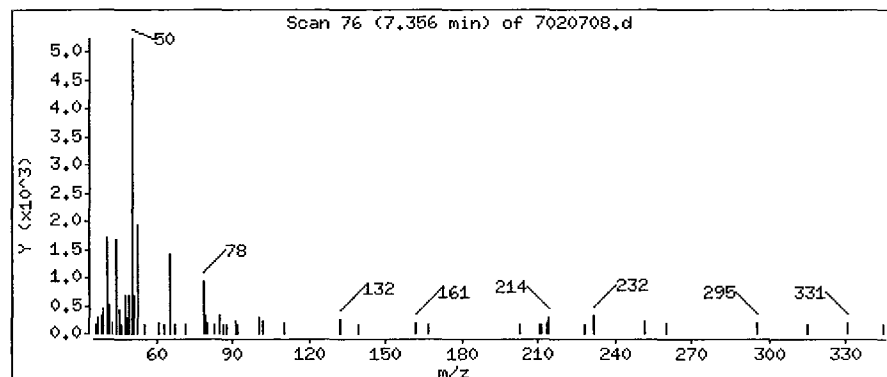
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4164 PPBV



0199

SCOEP00031871

Data File: /chem/msd7,i/7-07feb,b/7020708.d

Page 4

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

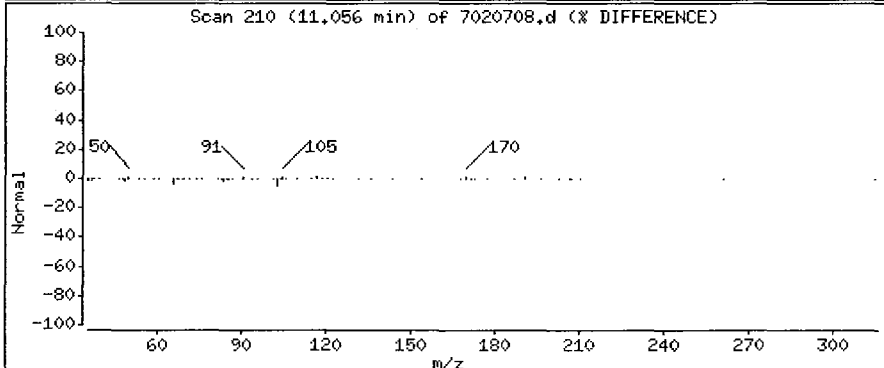
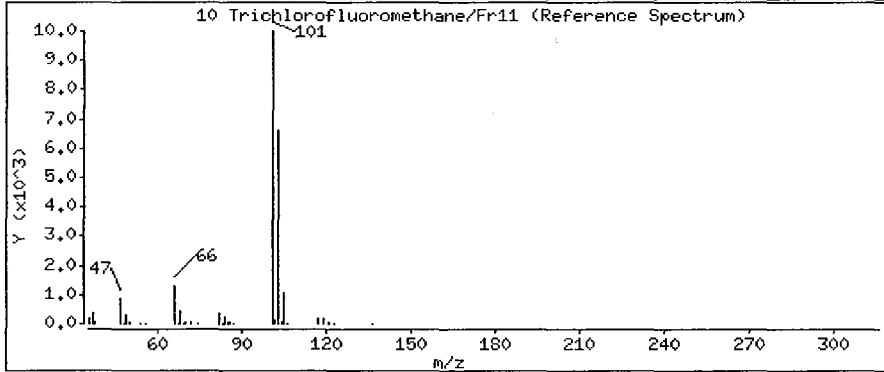
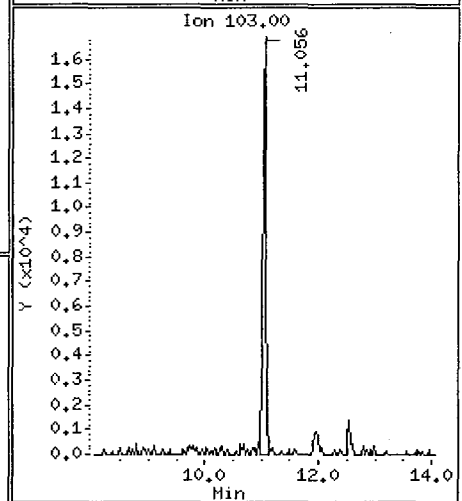
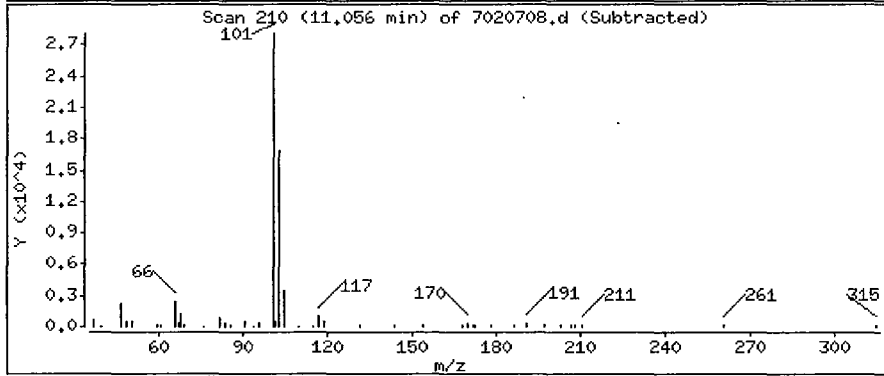
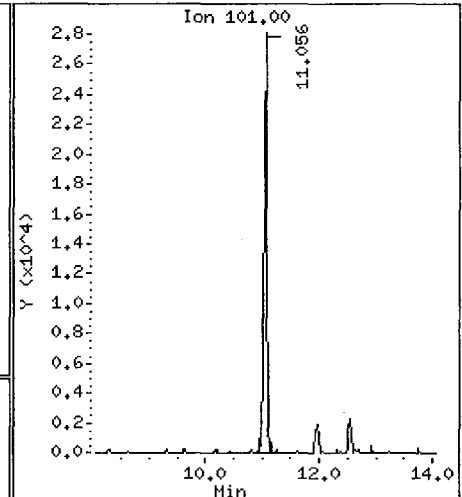
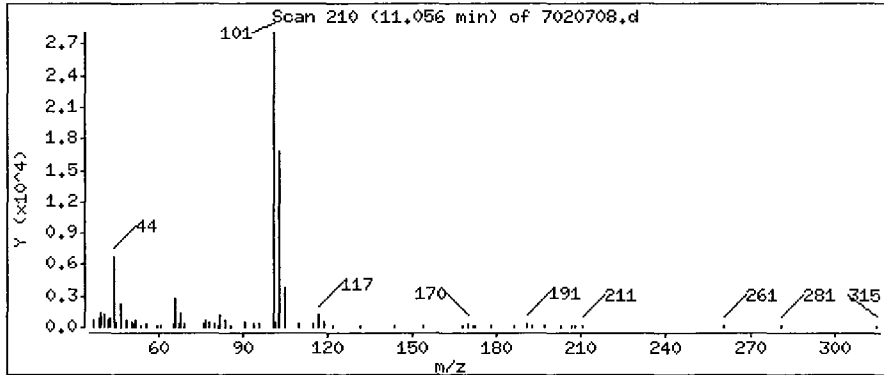
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.6082 PPBV



0200

SCOEPAA00031872

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

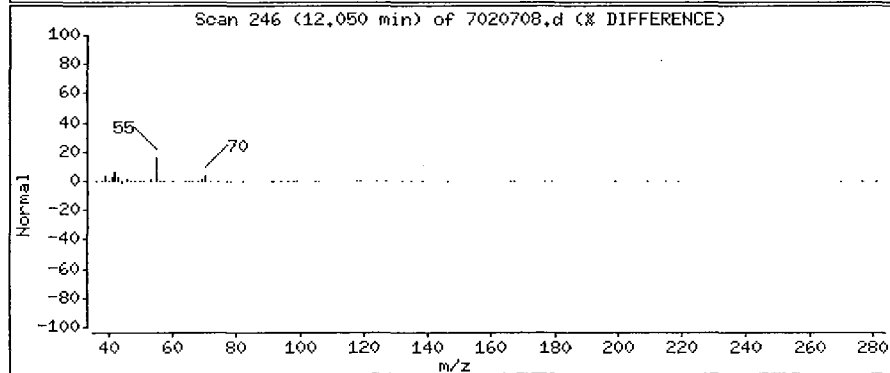
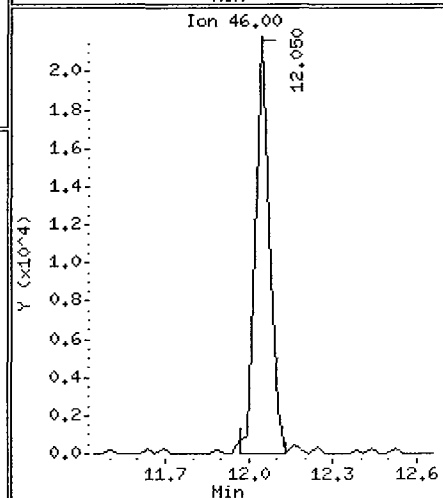
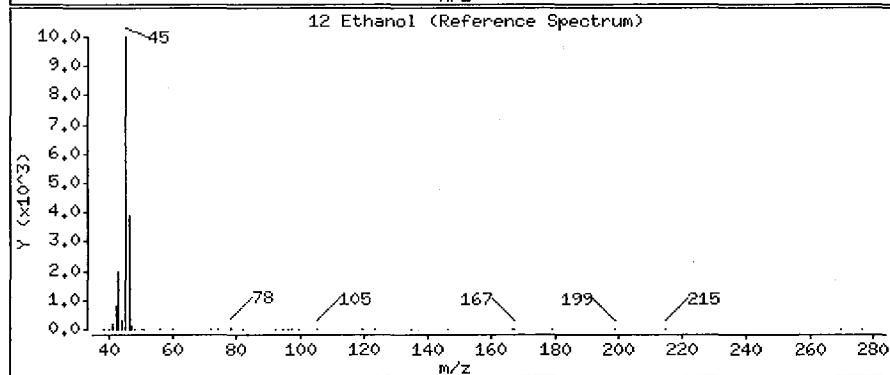
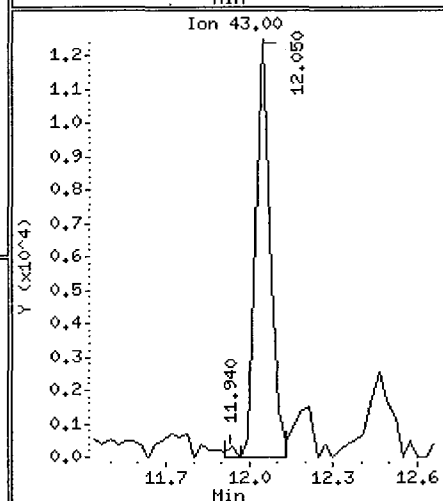
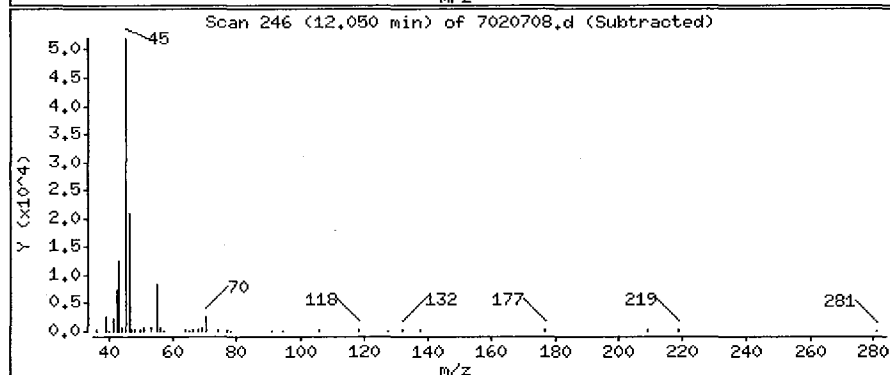
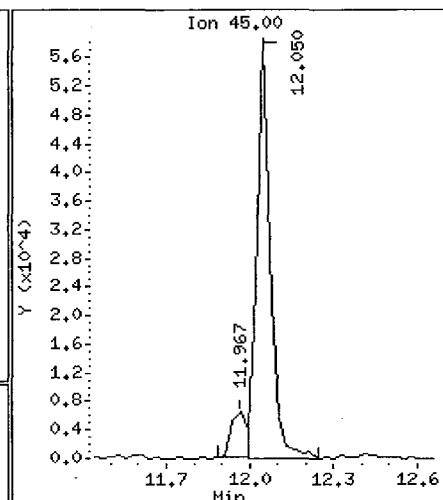
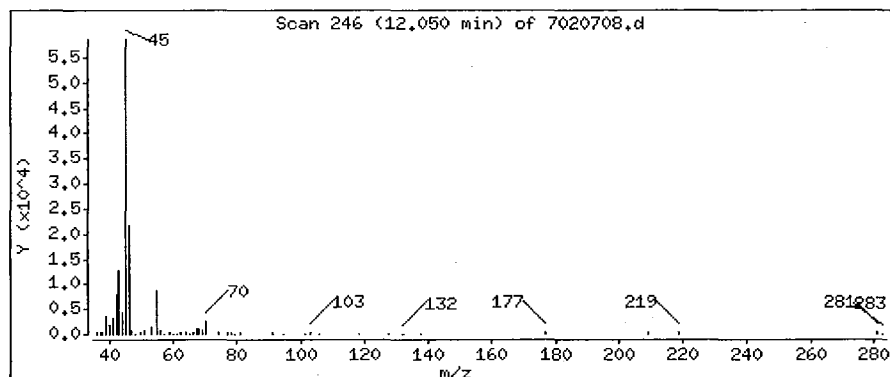
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 7.260 PPBV



0201

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

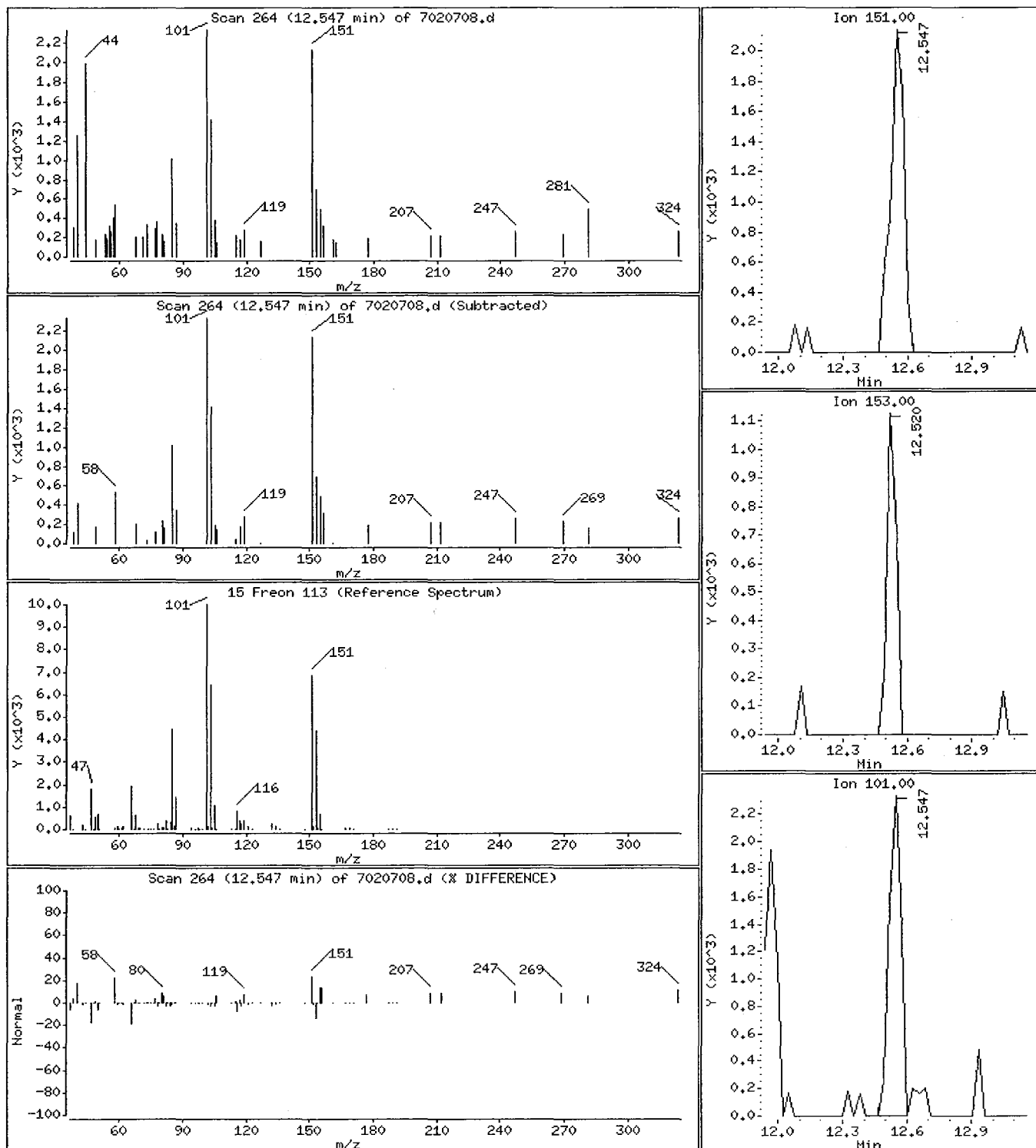
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

15 Freon 113

Concentration: 0.1188 PPBV



0202

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

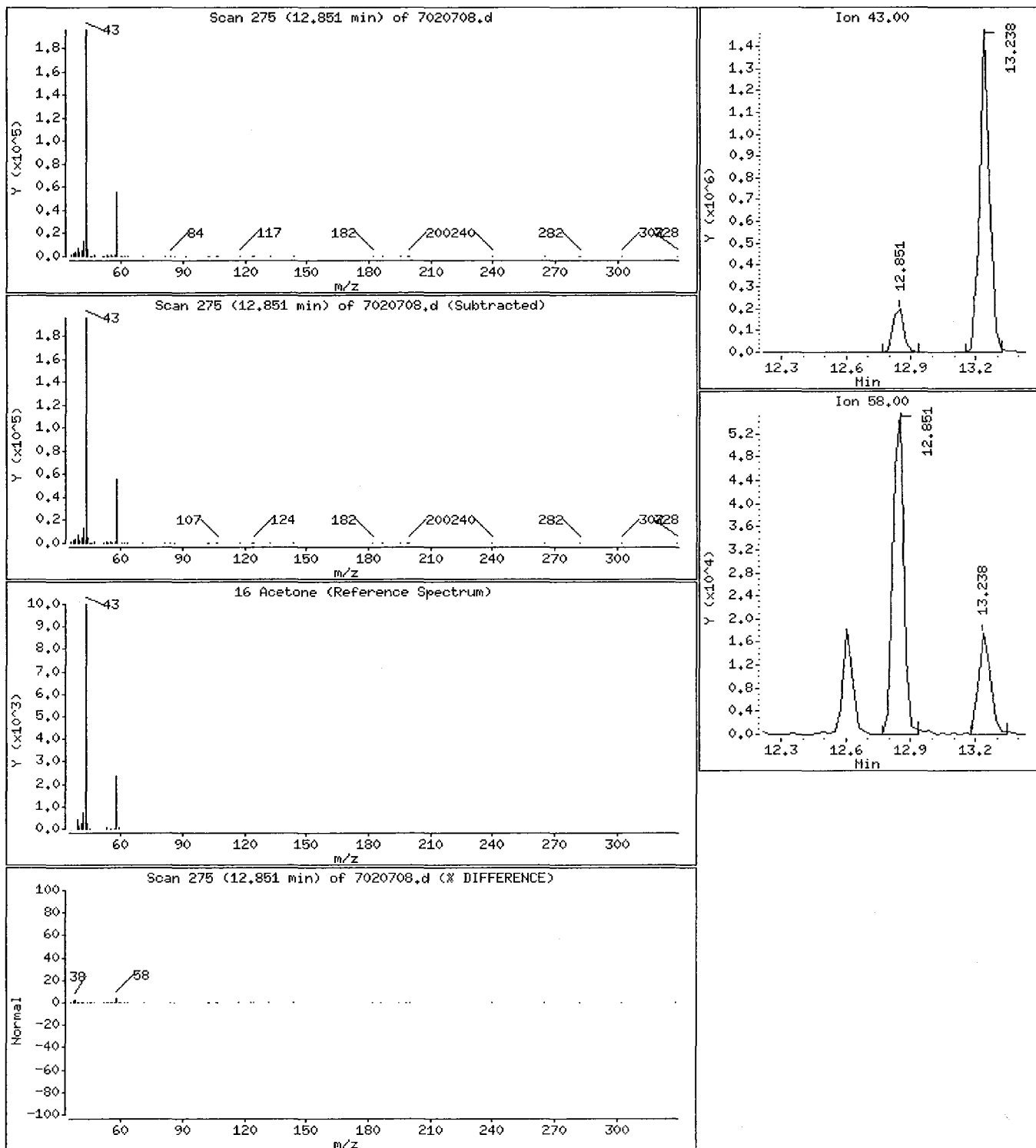
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 4.916 PPBV



0203

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

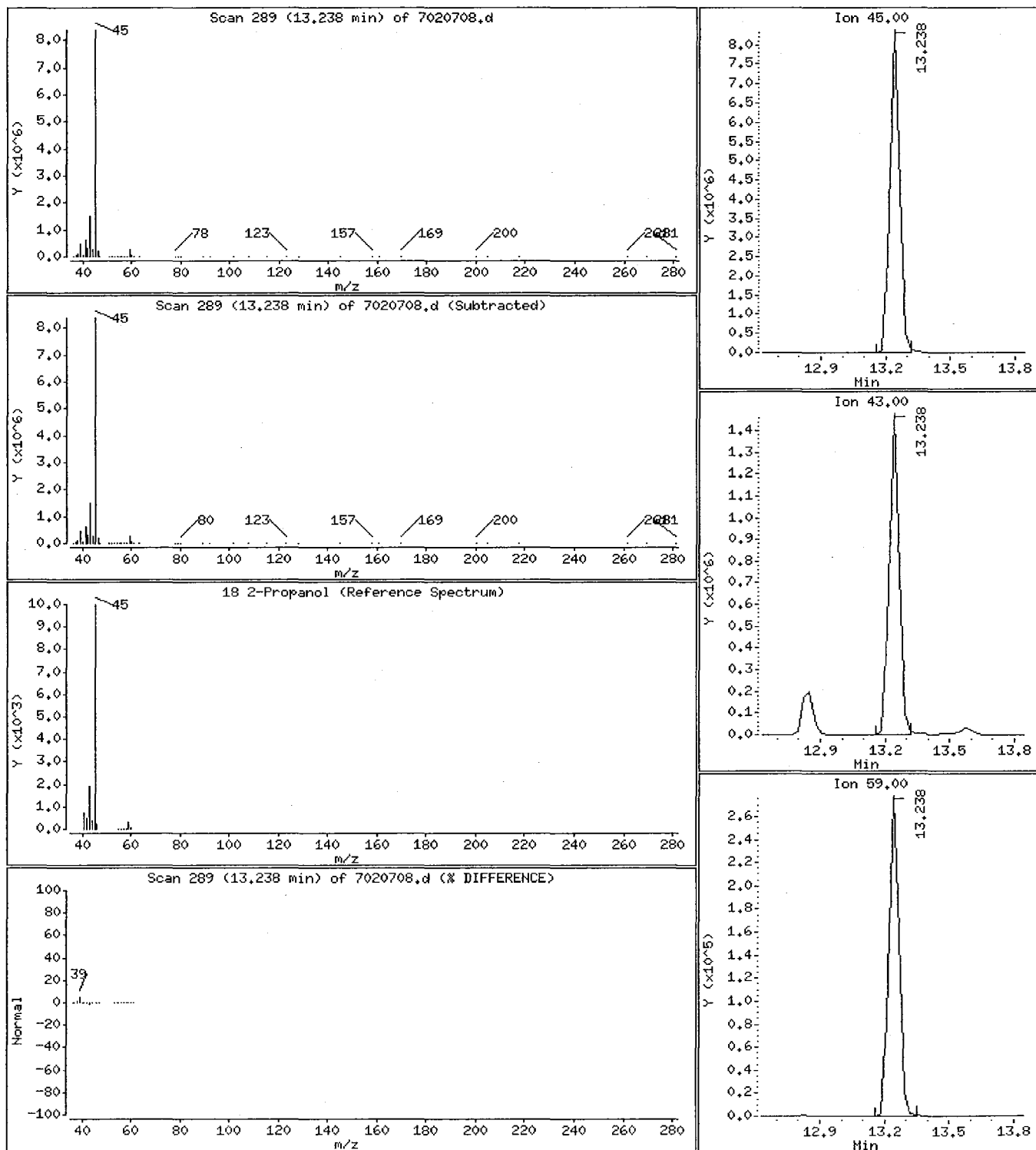
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 191.63 PPBV



0204

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

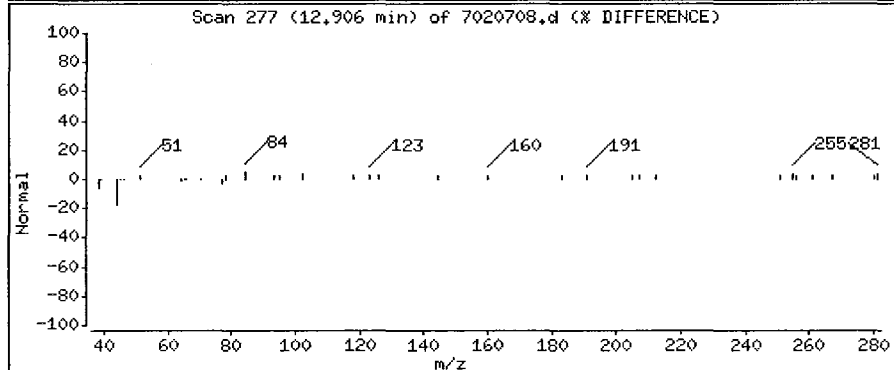
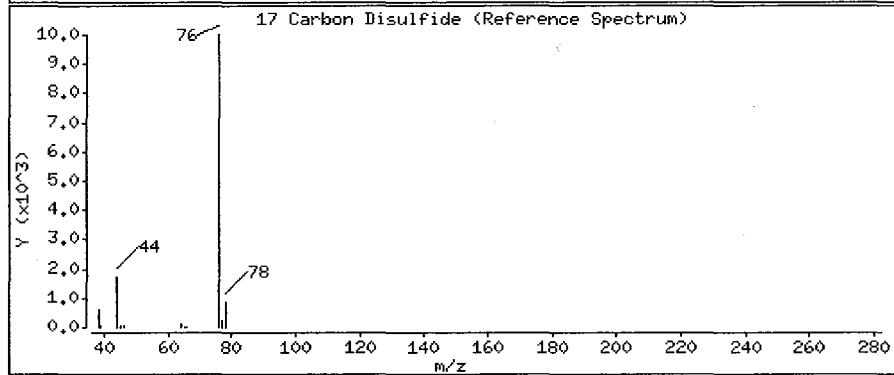
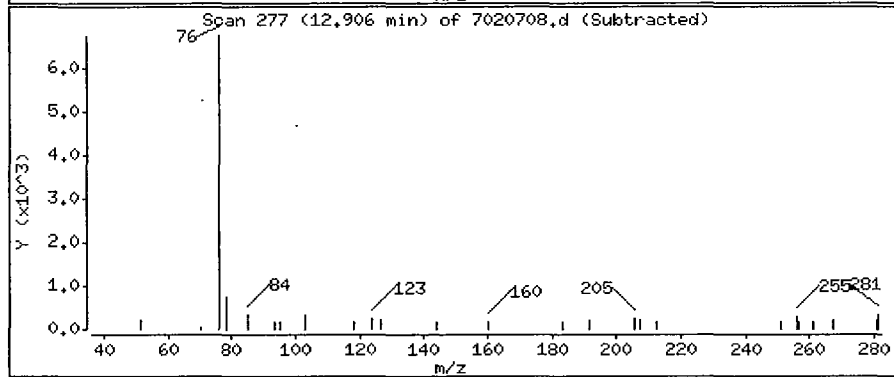
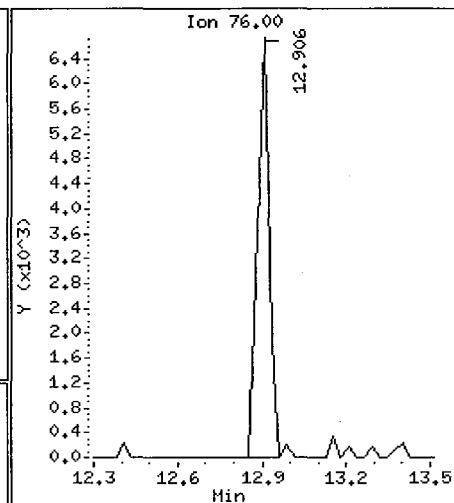
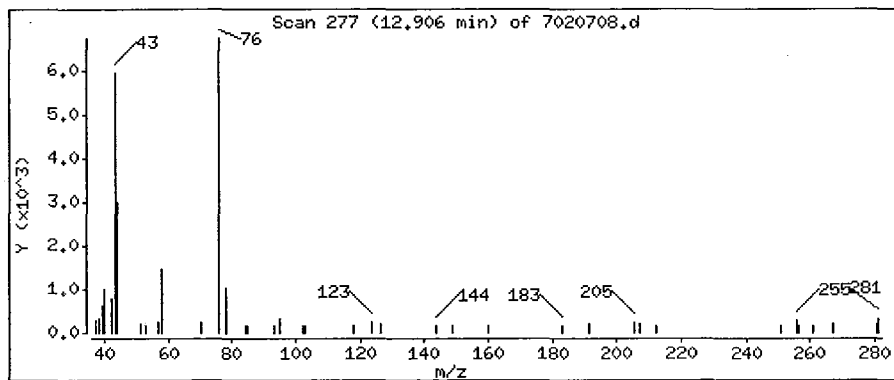
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.1061 PPBV



0205

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

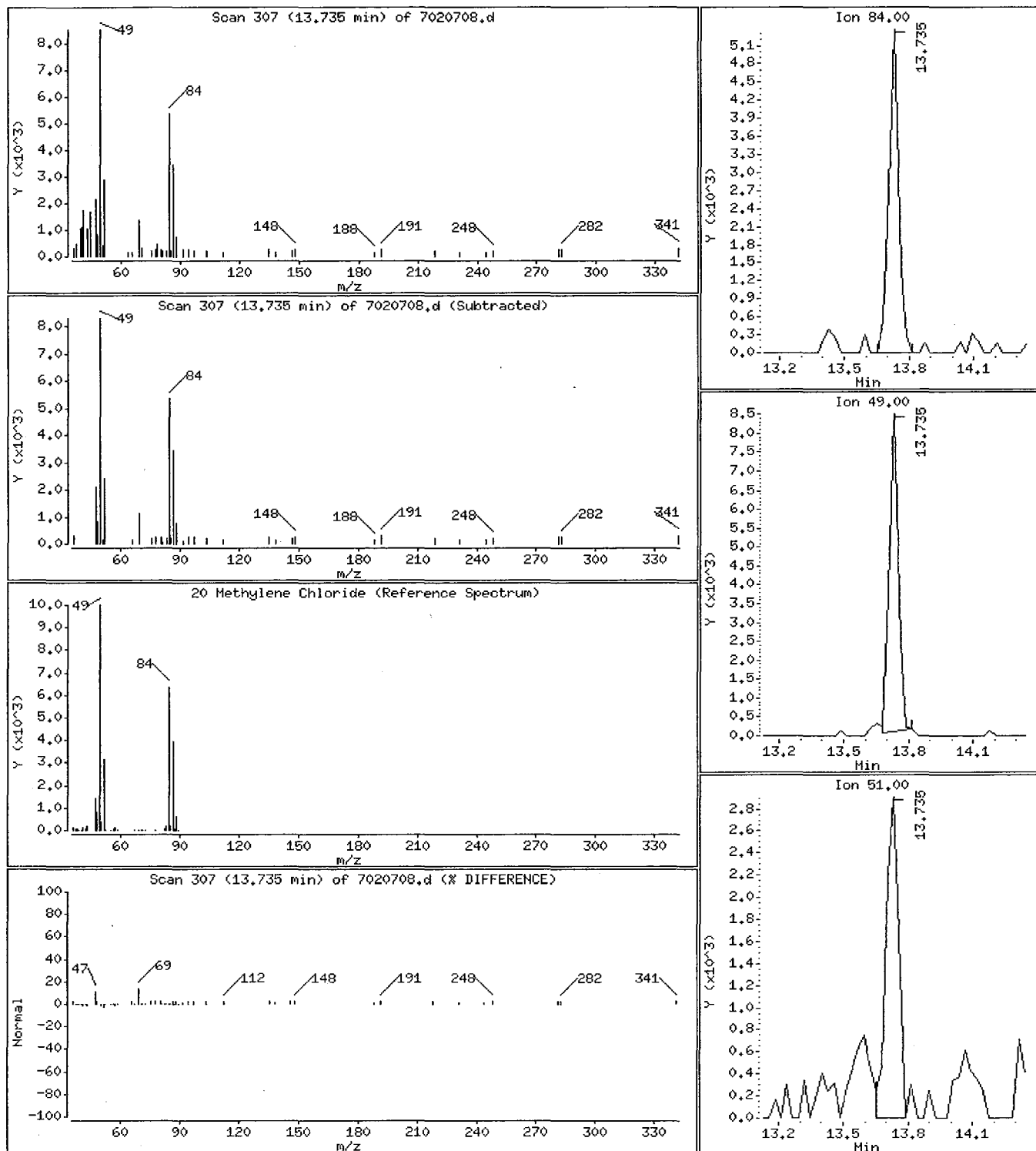
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.2983 PPBV



0206

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

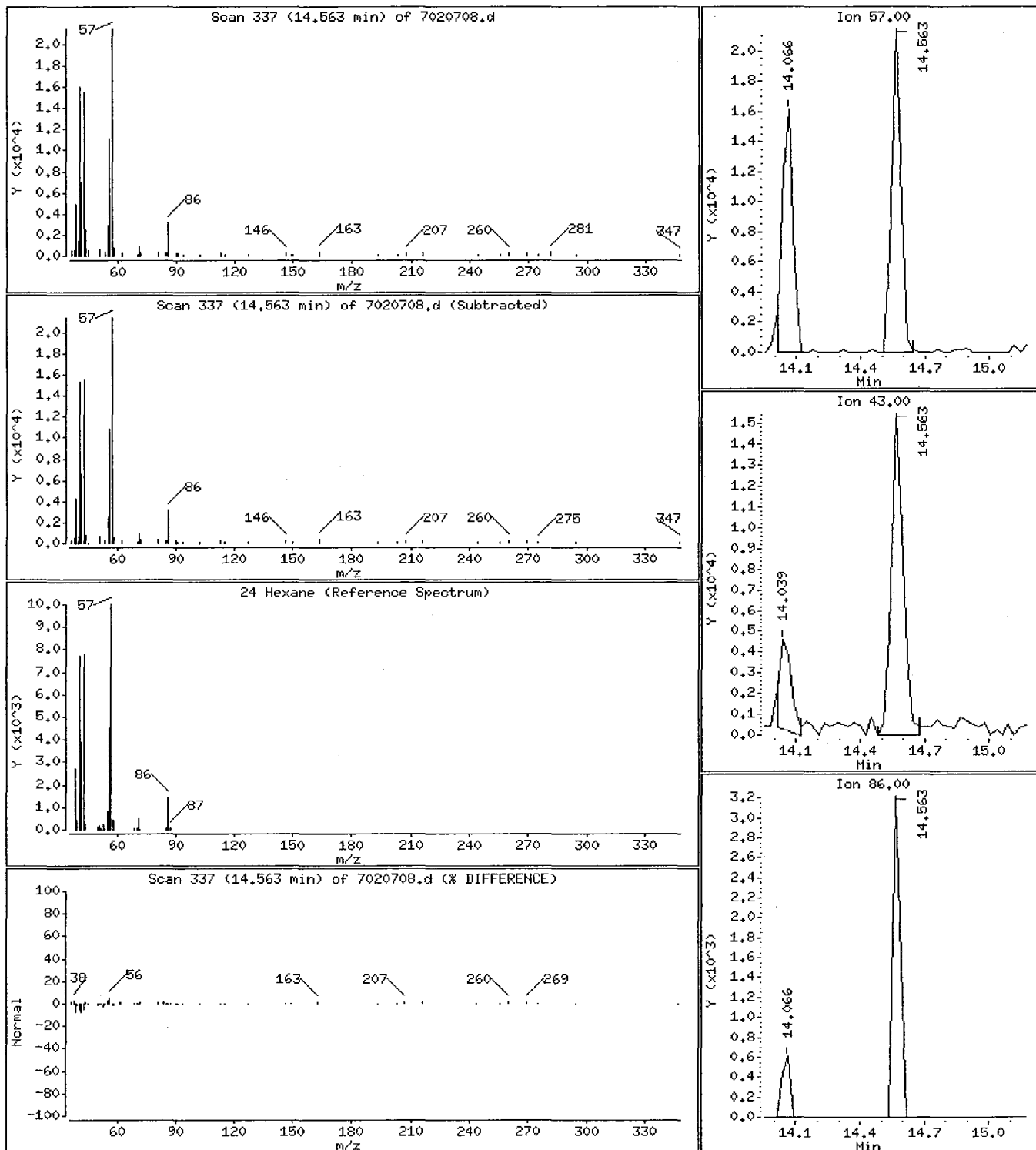
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.5918 PPBV



0207

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

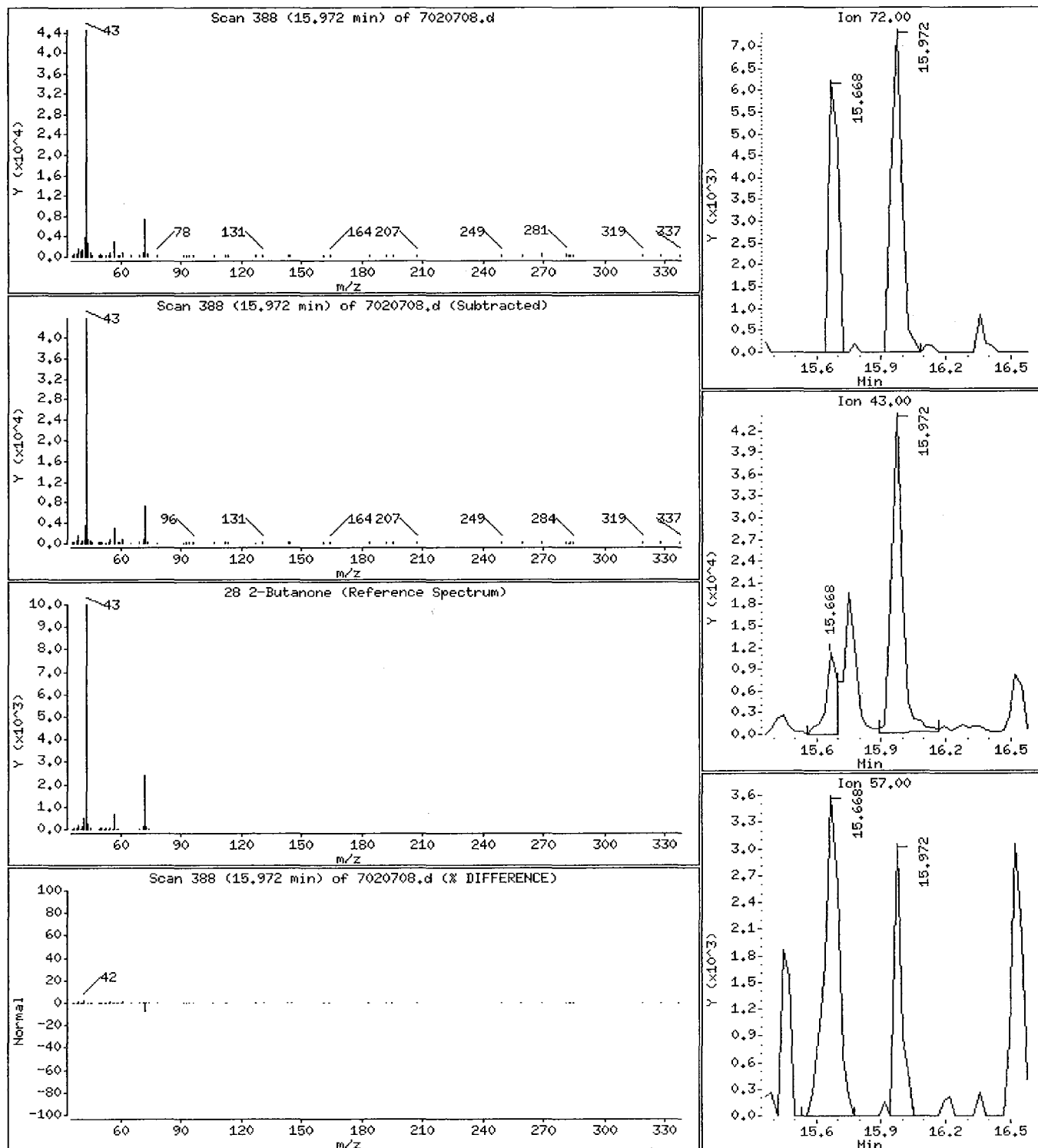
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 0.8526 PPBV



0208

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

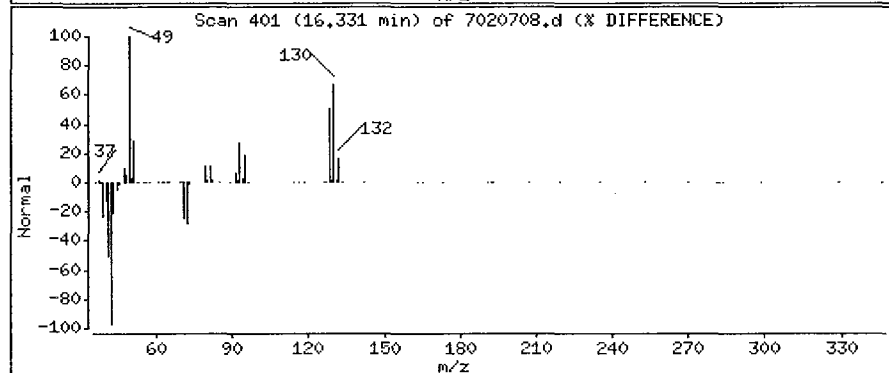
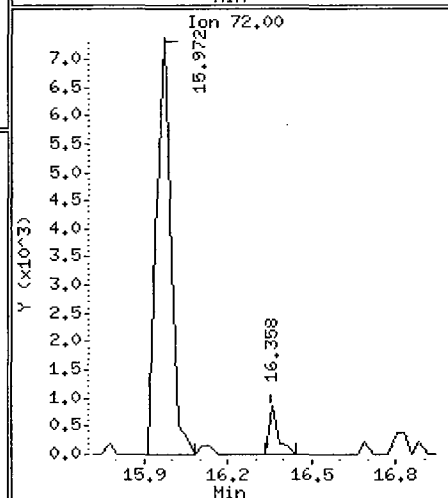
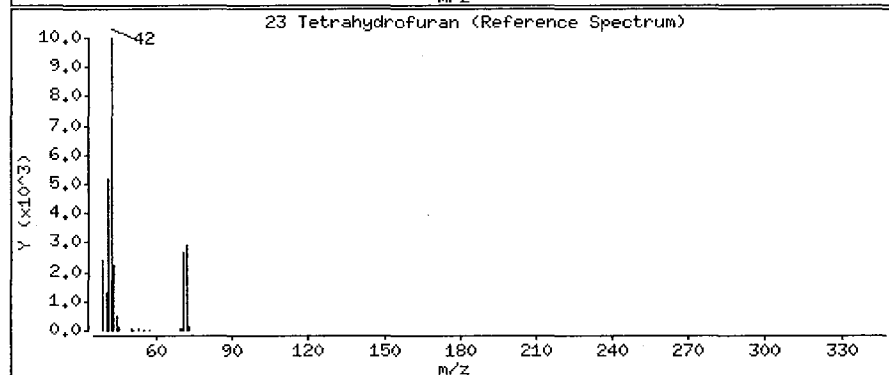
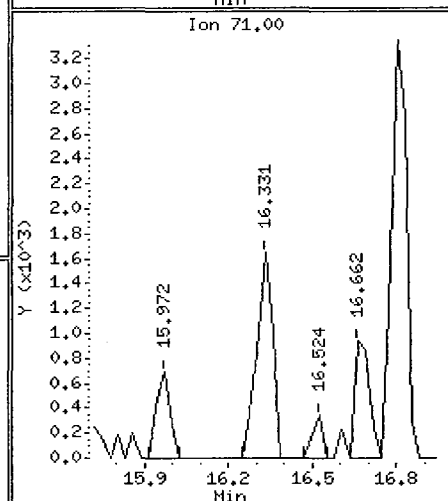
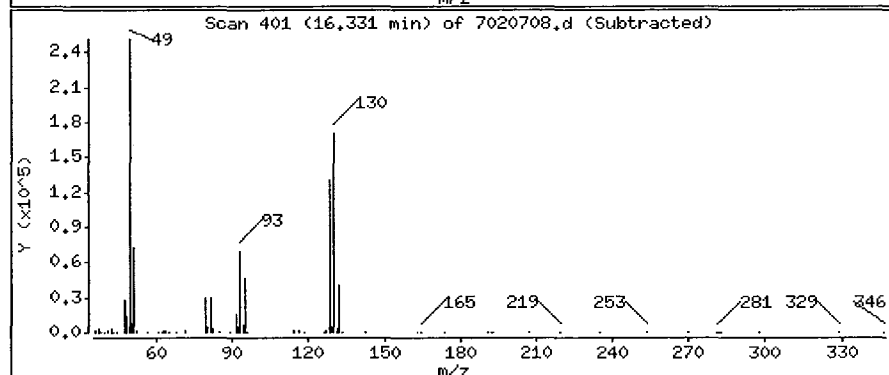
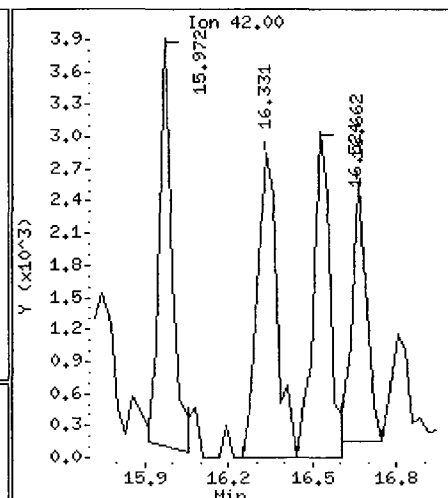
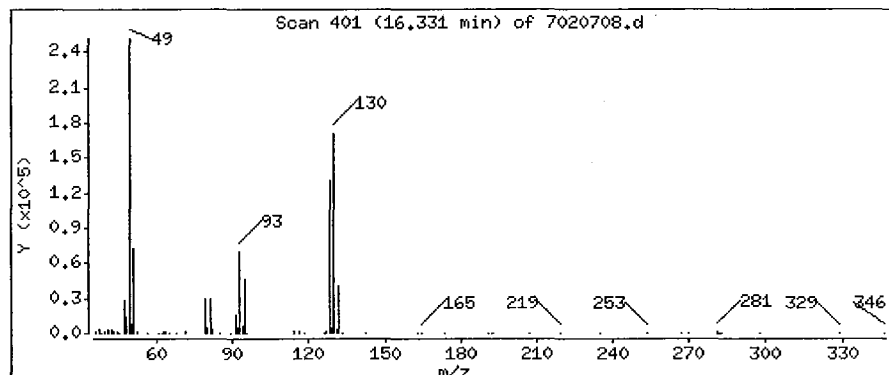
Operator: MN

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1701 PPBV



0209

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

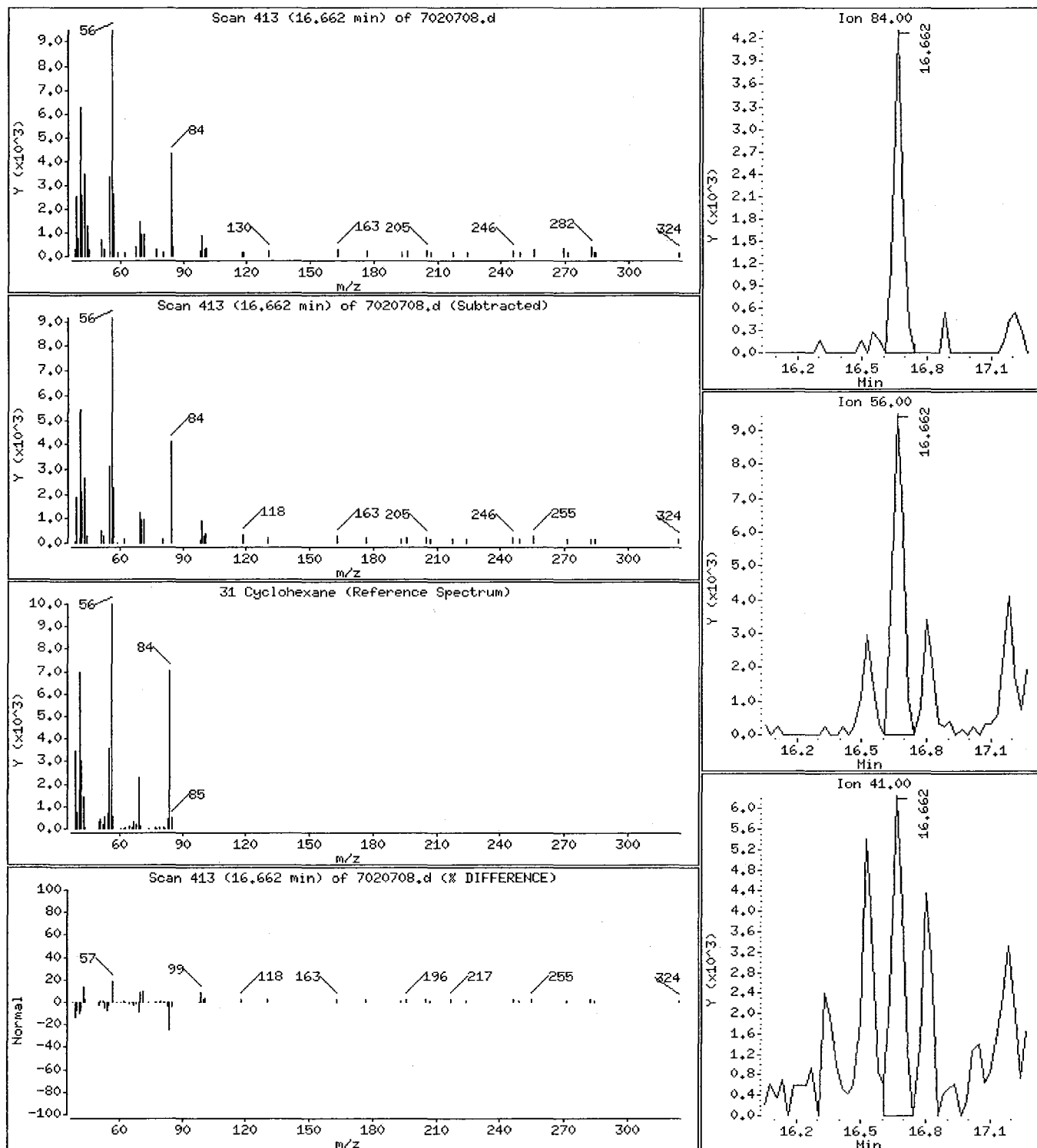
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.2104 PPBV



0210

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

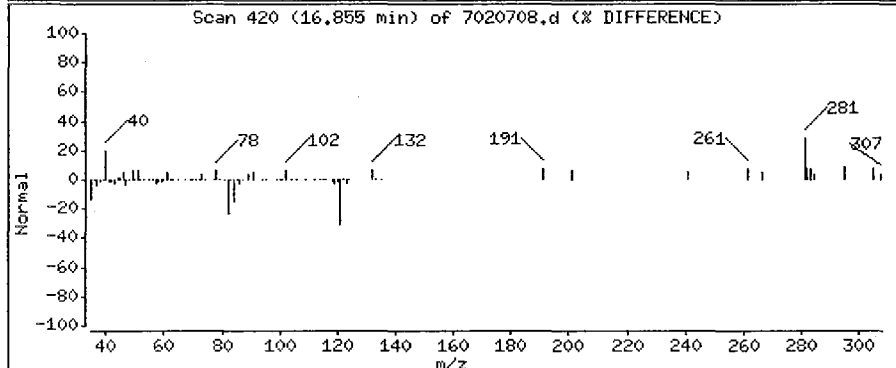
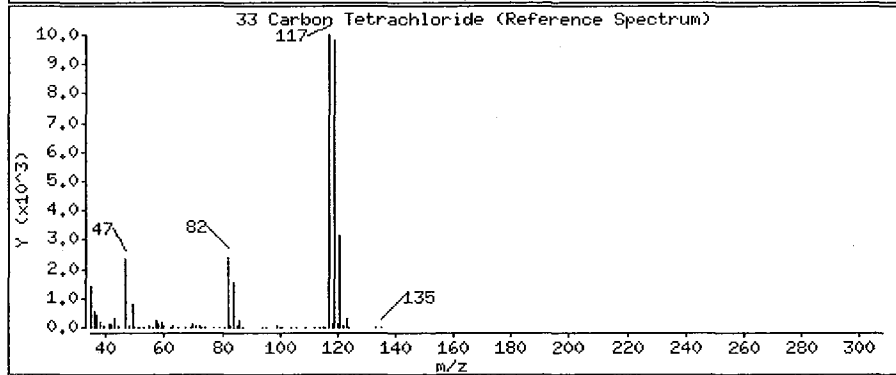
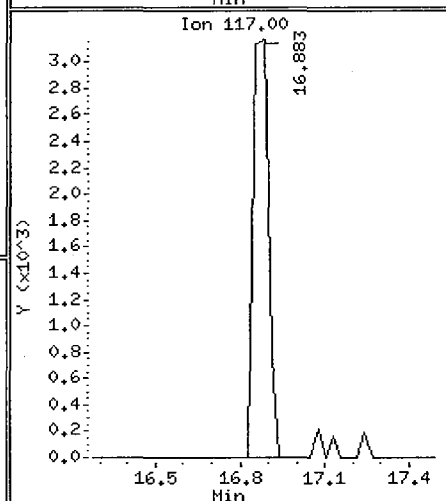
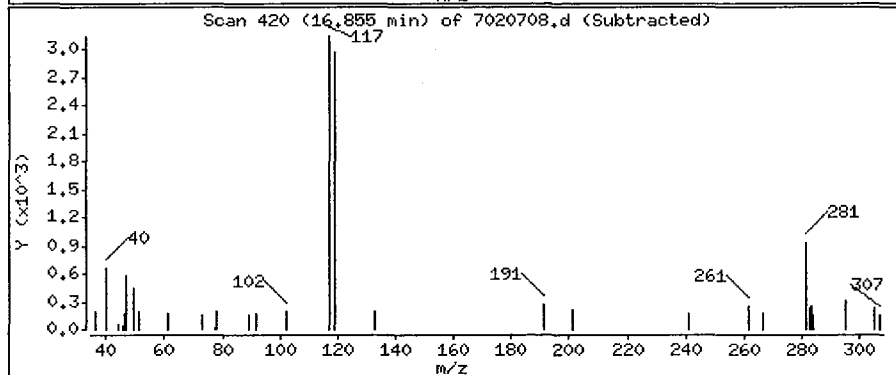
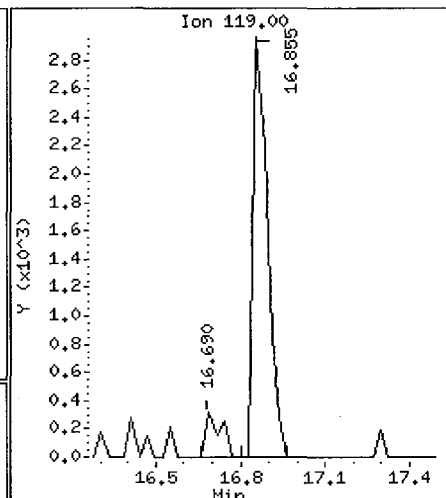
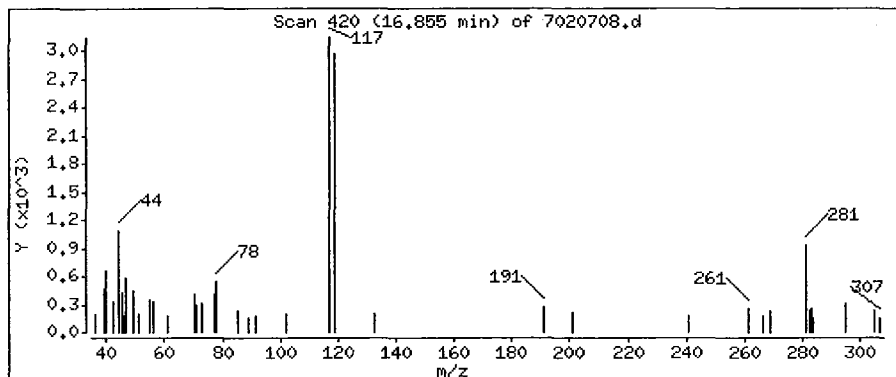
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1062 PPBV



0211

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.1

Sample Info: 500mL Can#32130

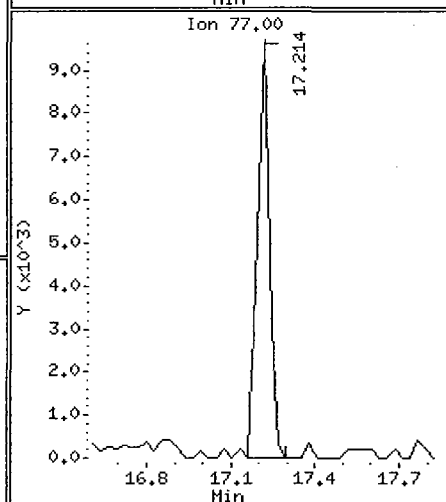
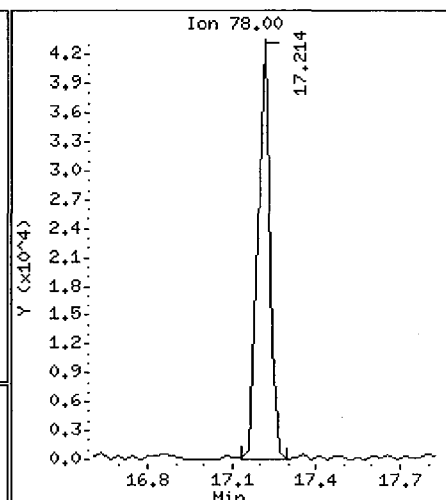
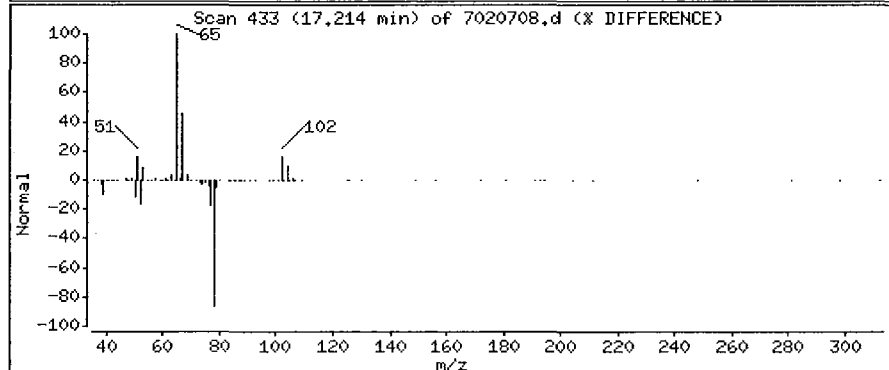
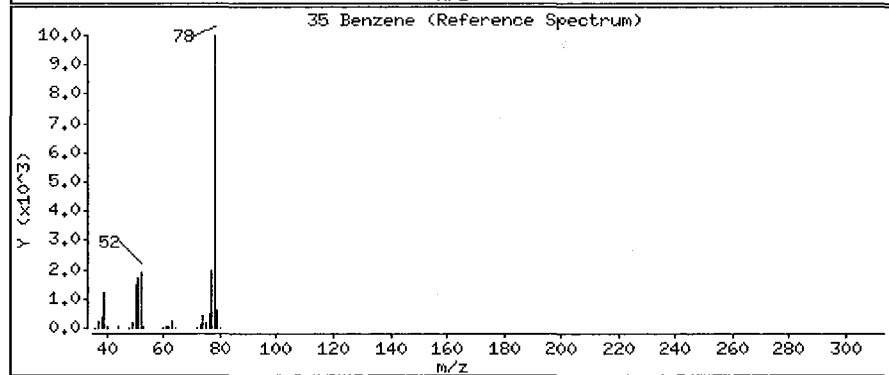
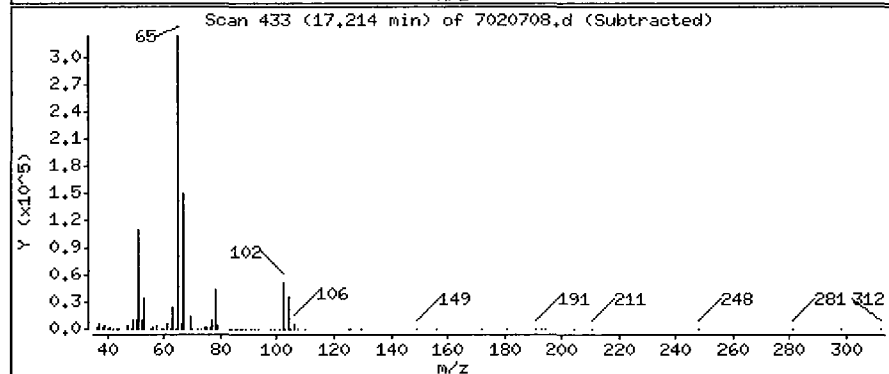
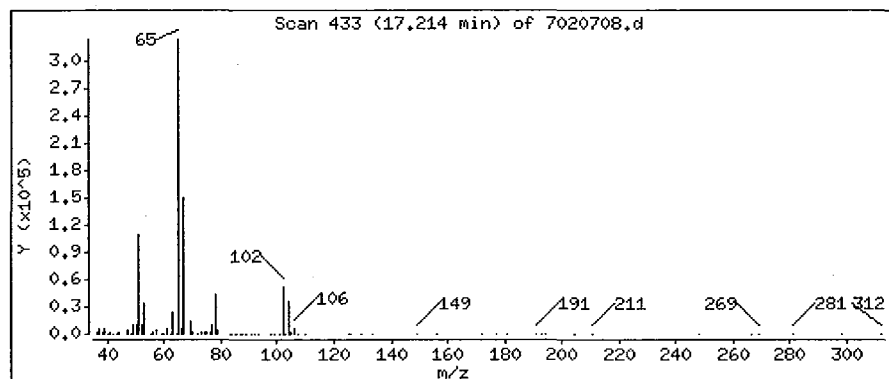
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.6947 PPBV



0212

SCOEPAA00031884

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

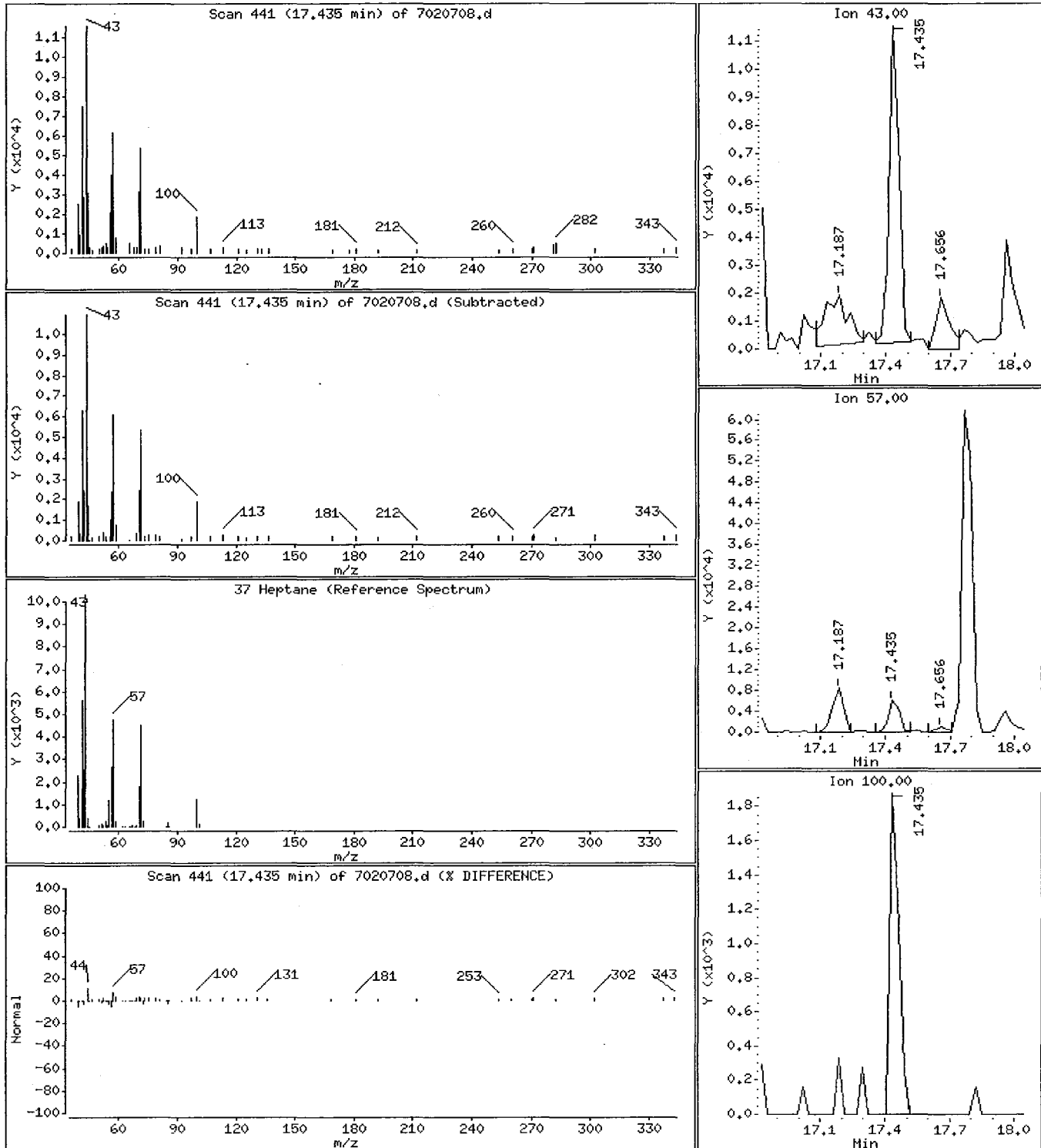
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.3319 PPBV



0213

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

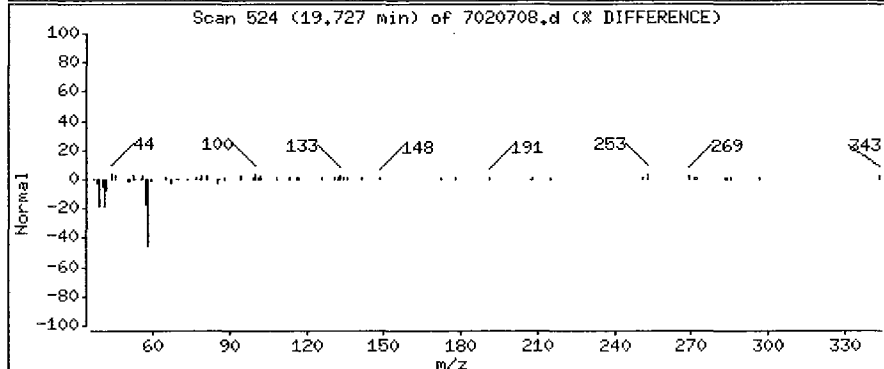
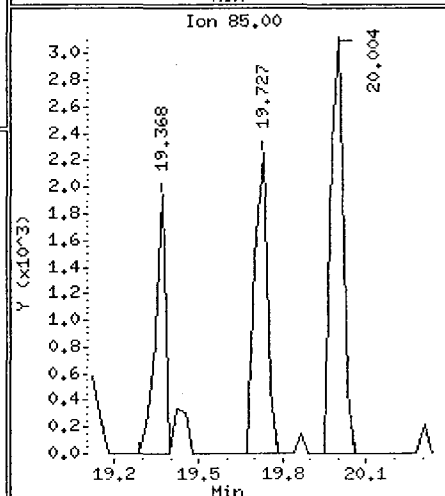
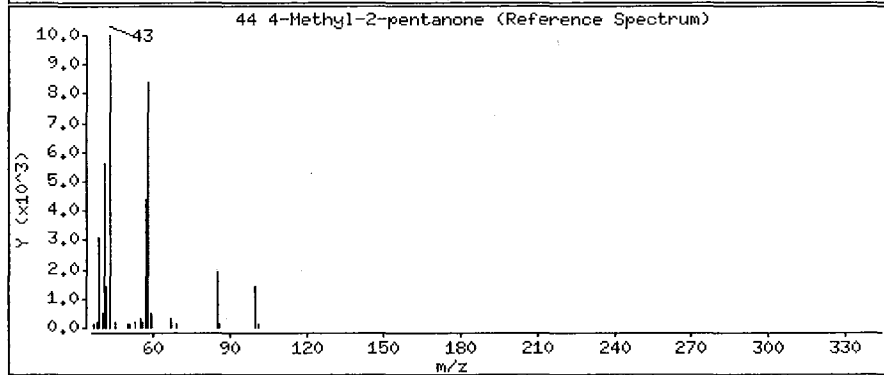
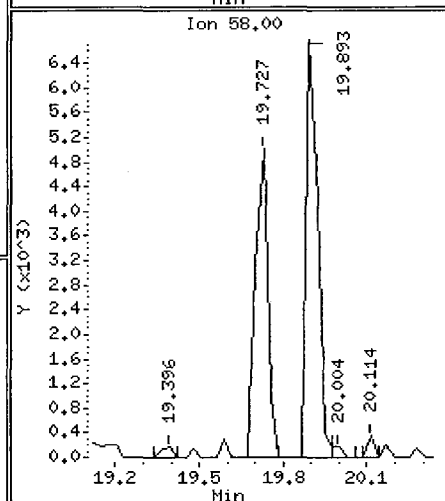
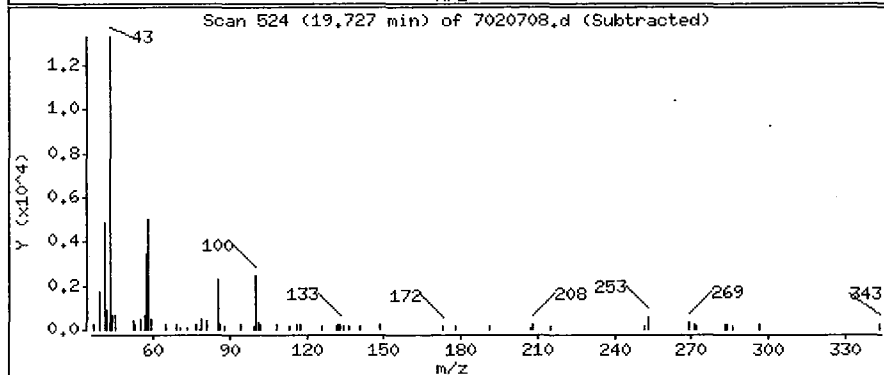
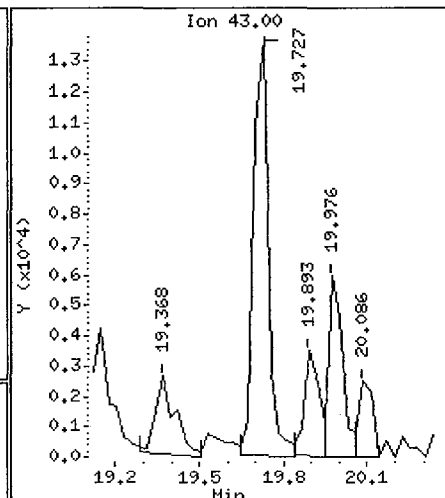
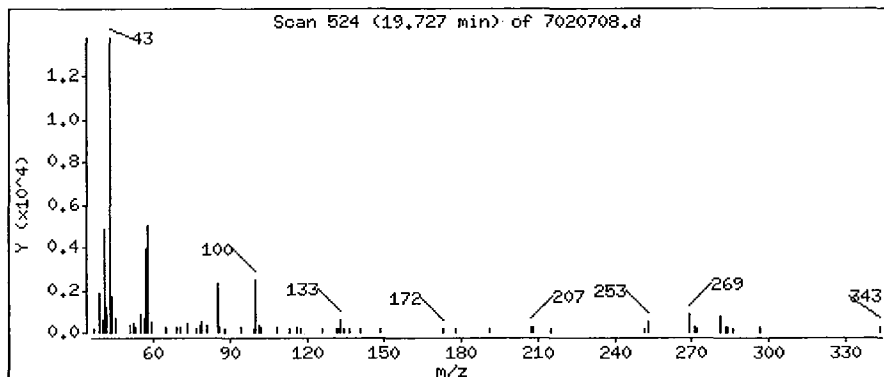
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.4310 PPBV



0214

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

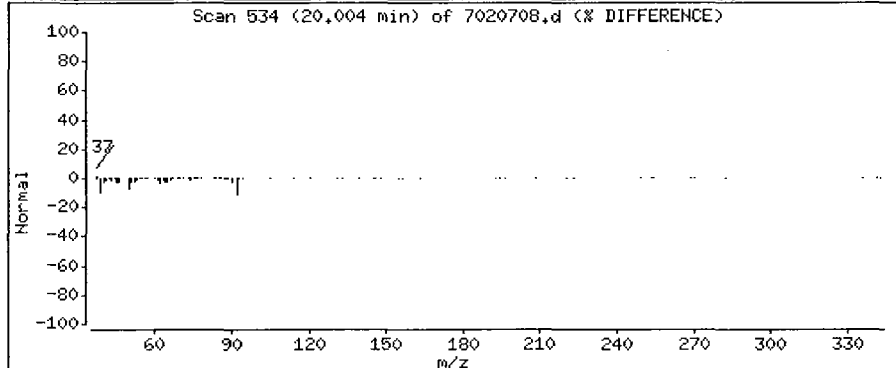
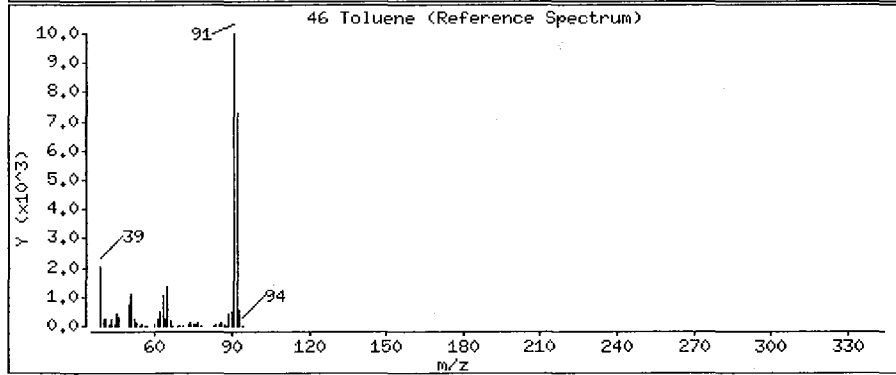
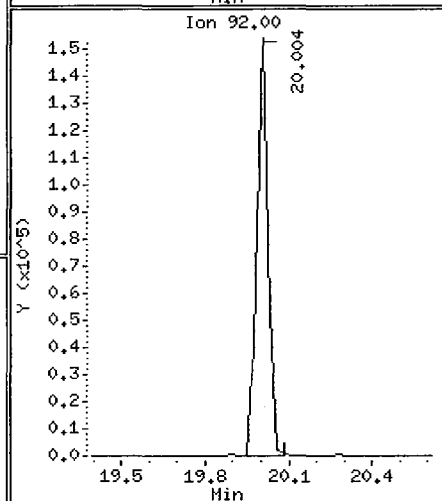
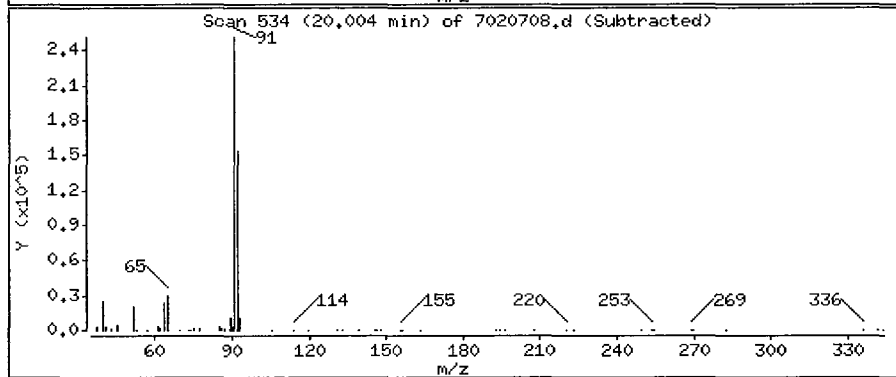
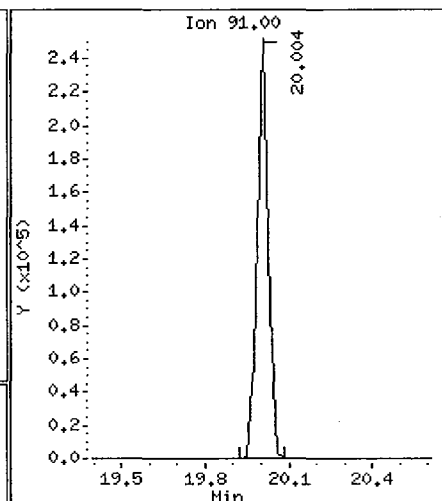
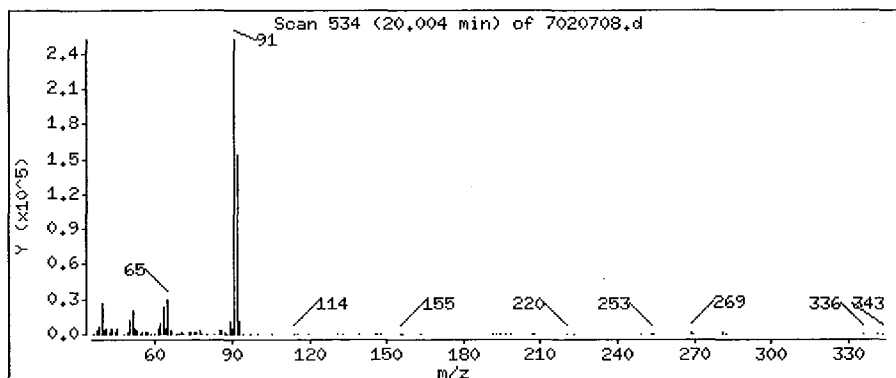
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 3.236 PPBV



0215

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

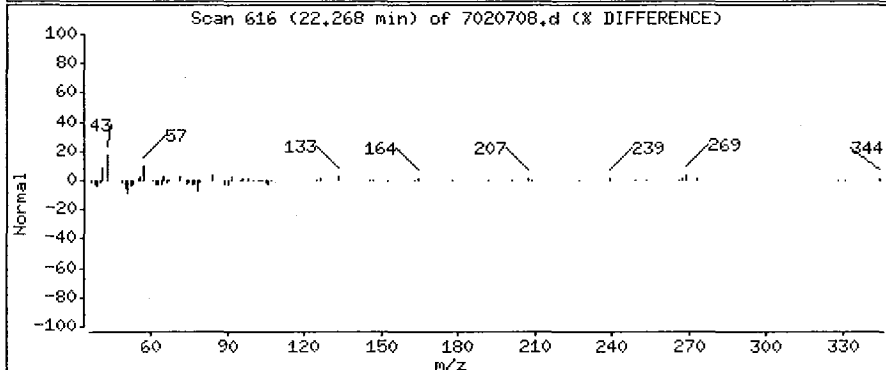
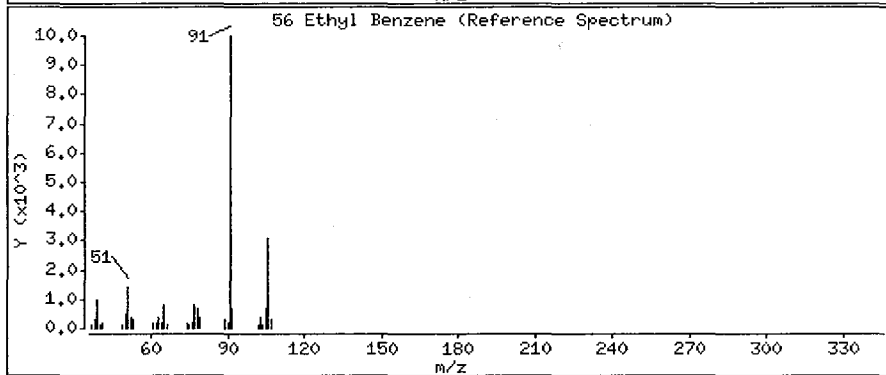
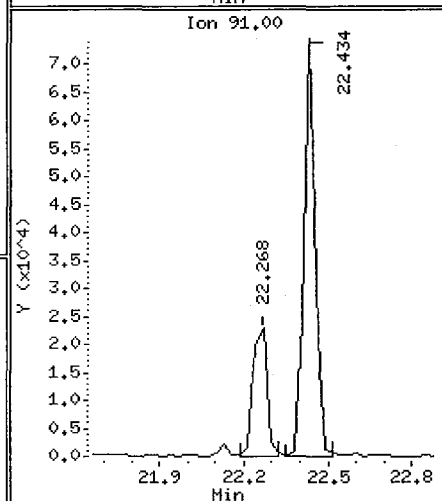
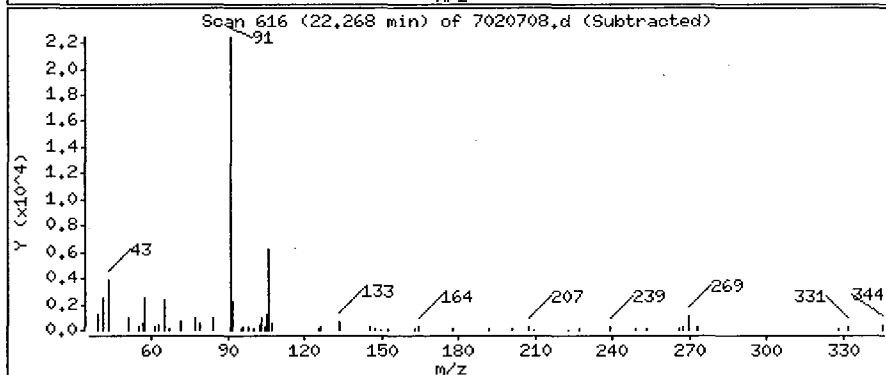
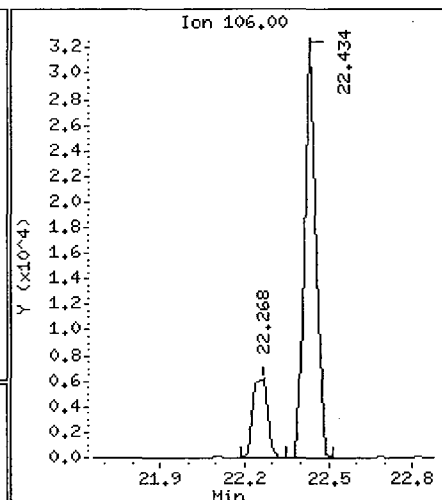
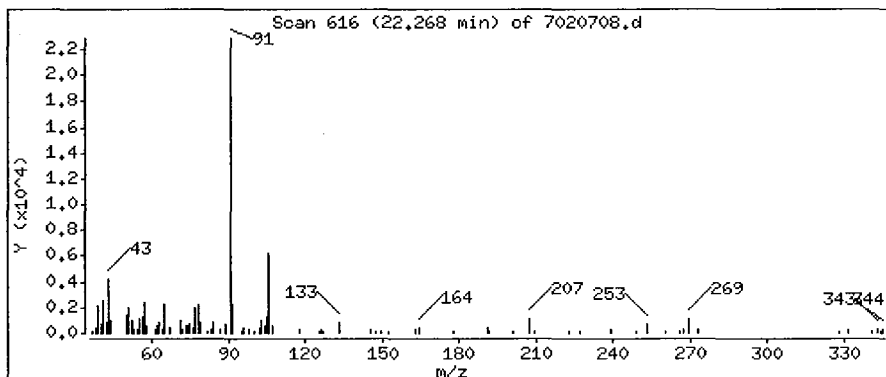
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.3026 PPBV



0216

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

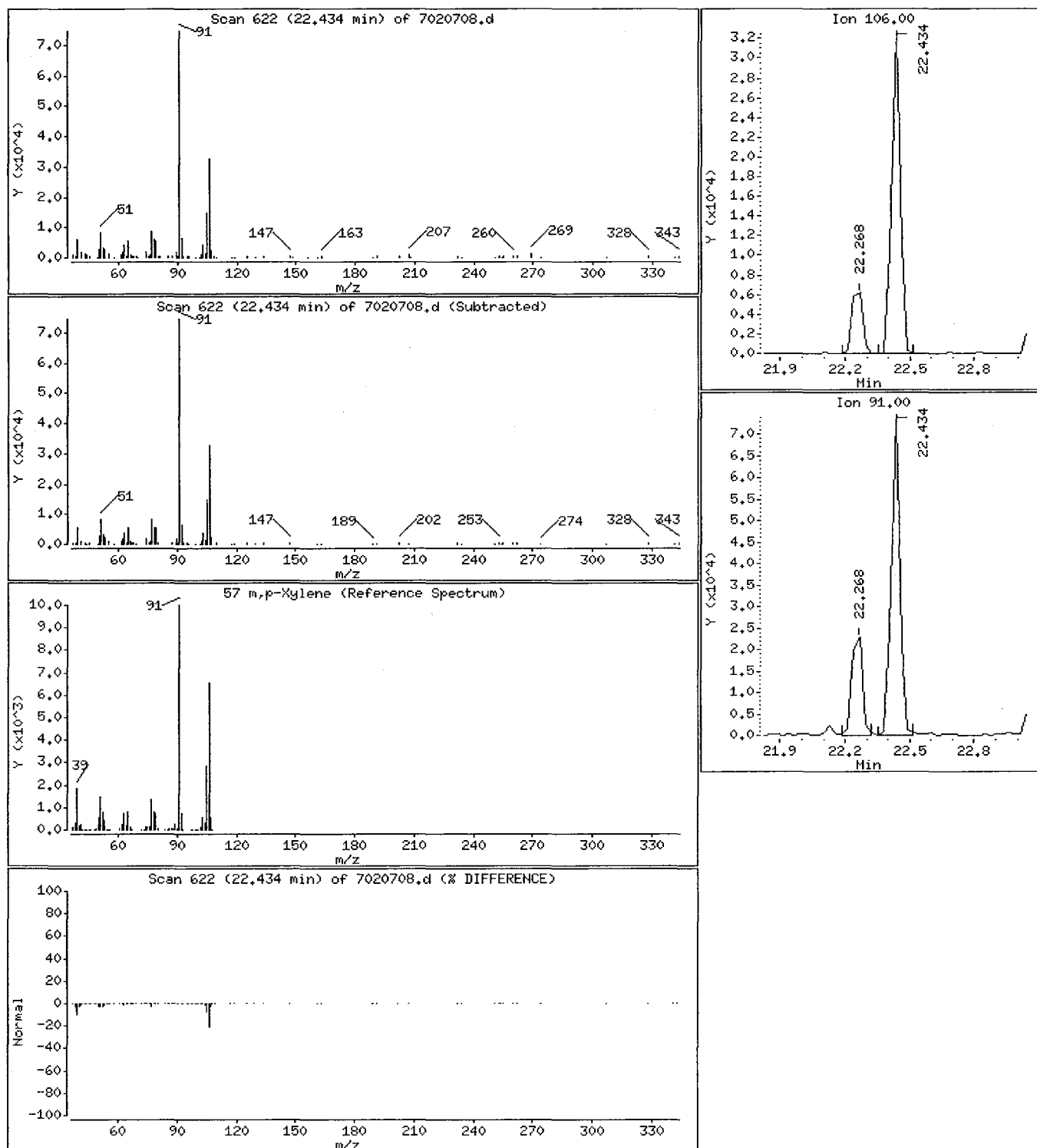
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.012 PPBV



0217

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

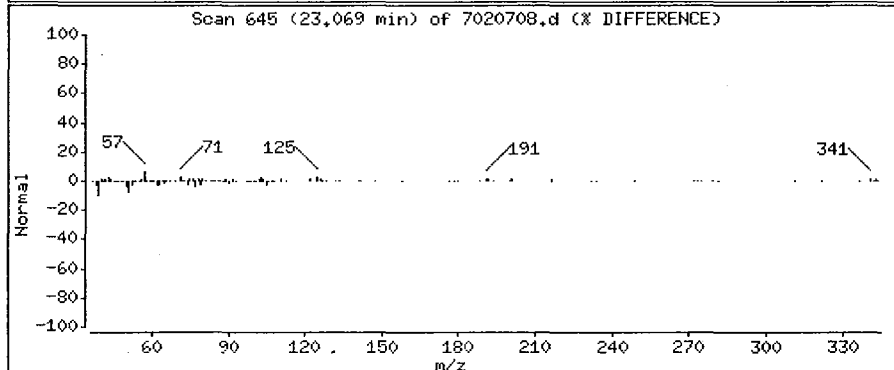
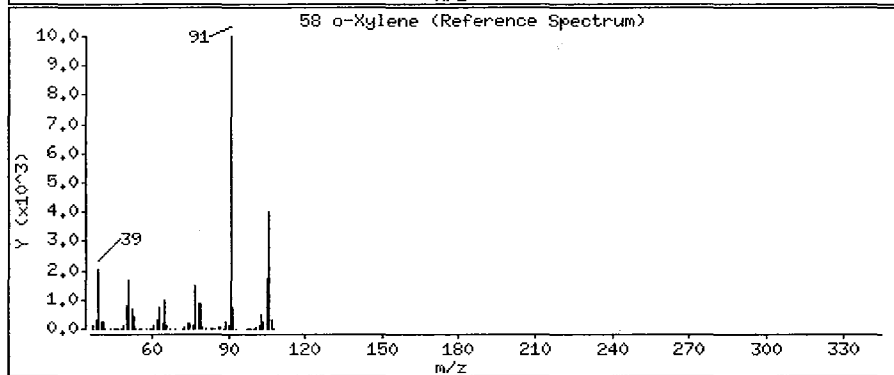
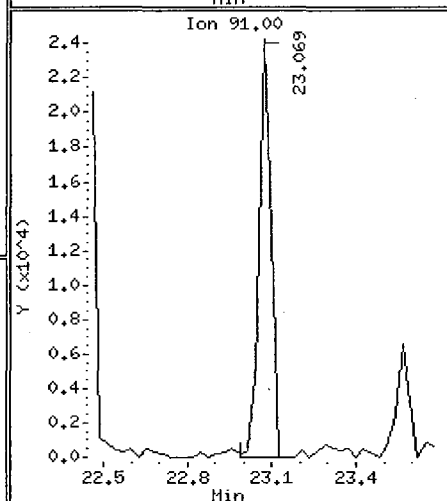
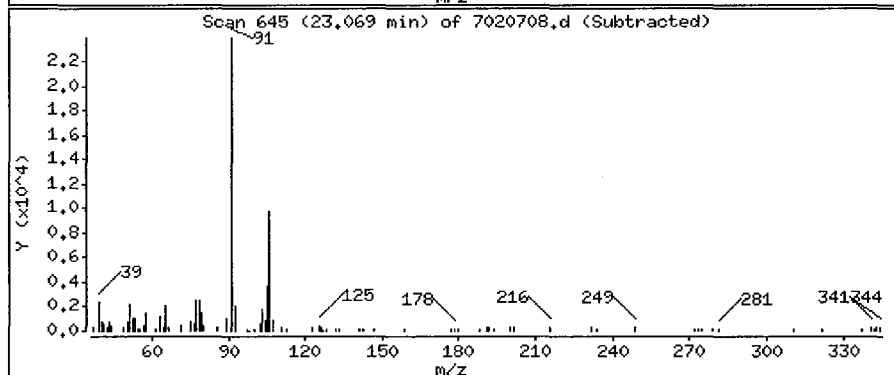
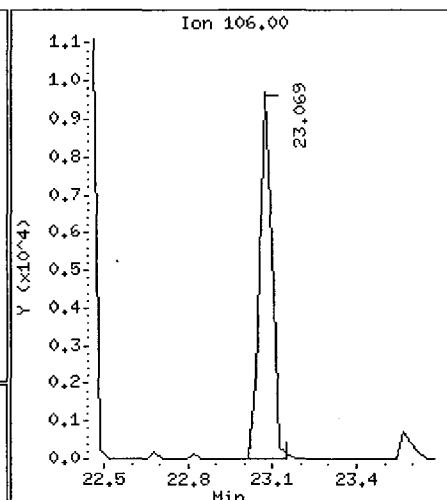
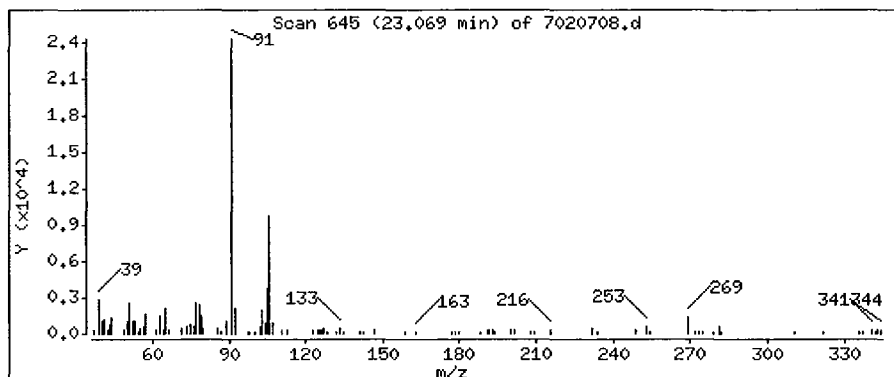
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.4060 PPBV



0218

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

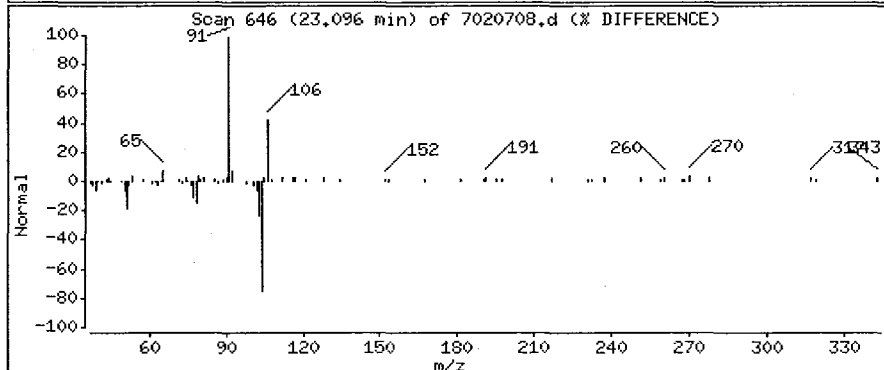
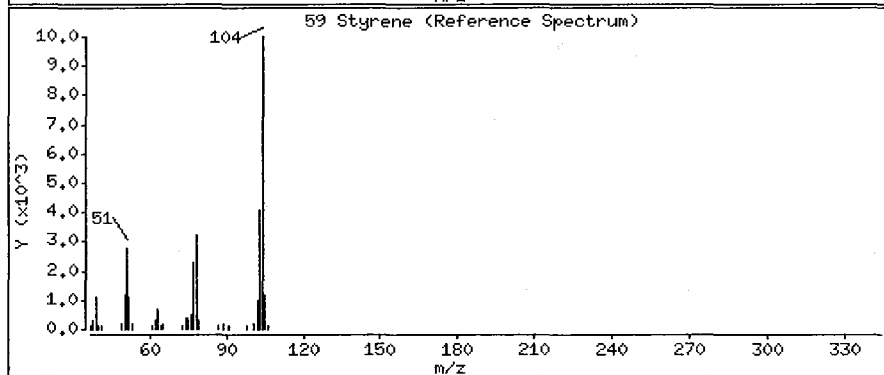
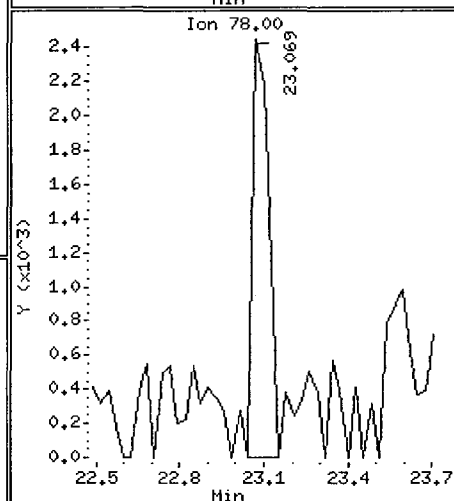
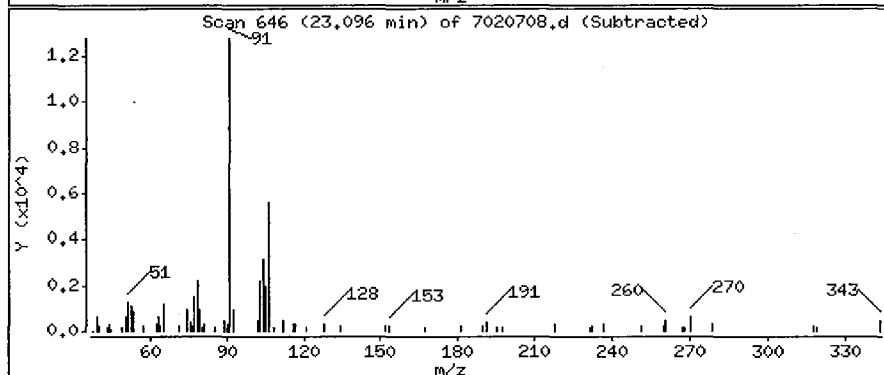
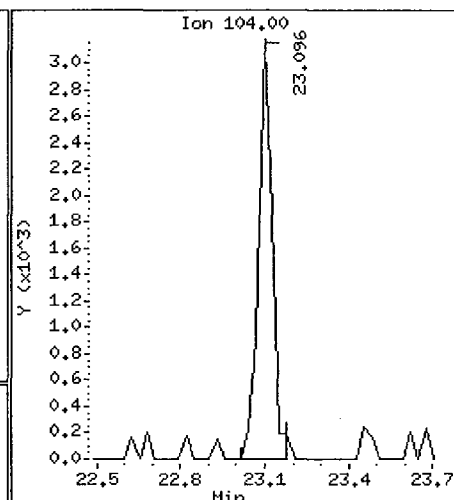
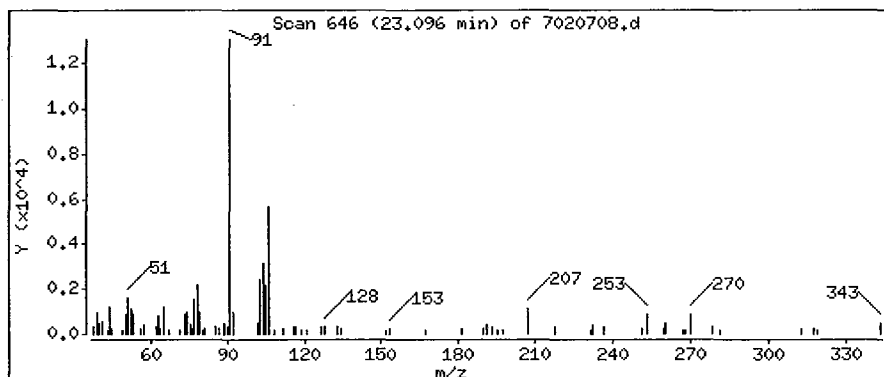
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.09627 PPBV



0219

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

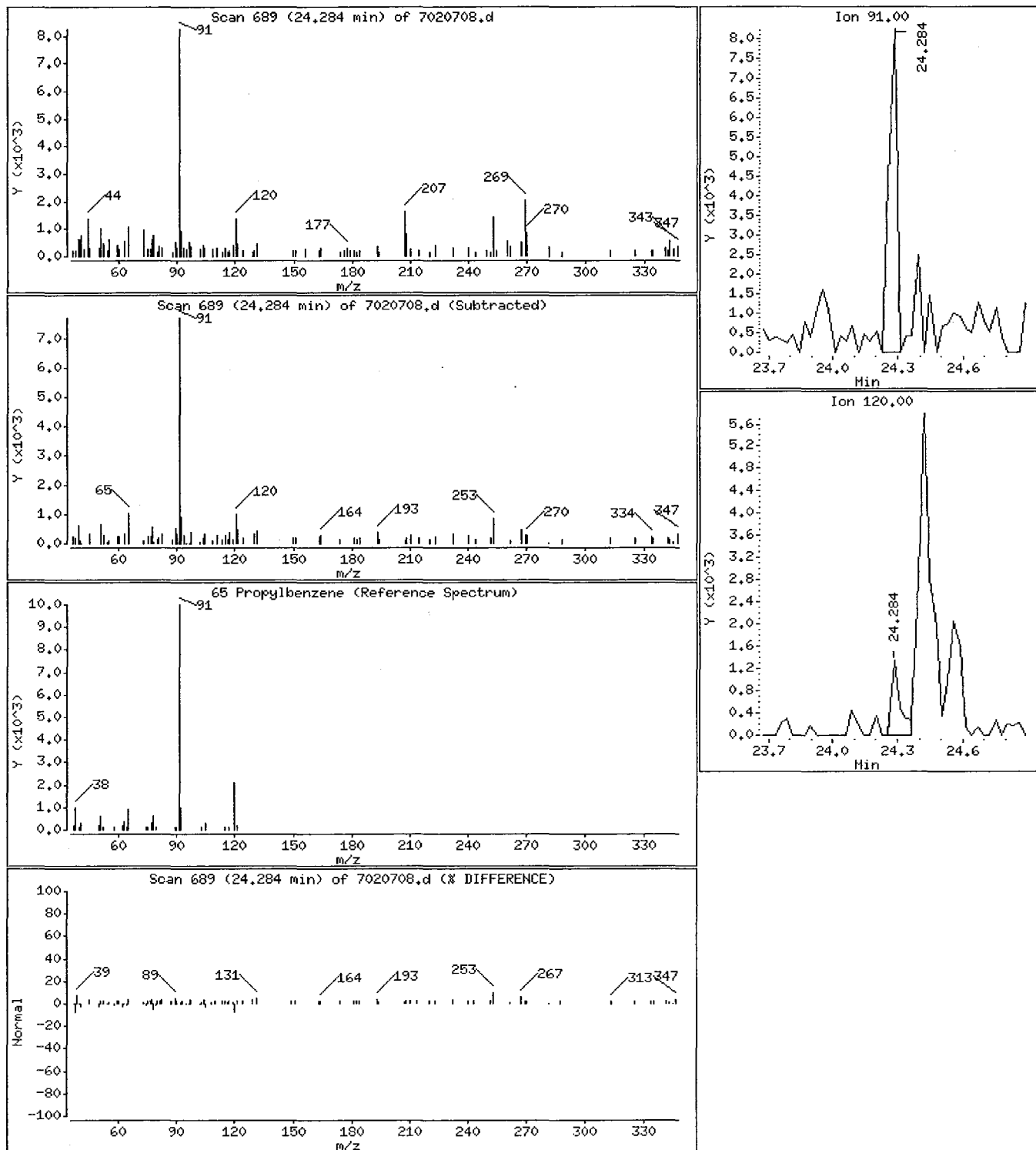
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.08610 PPBV



0220

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

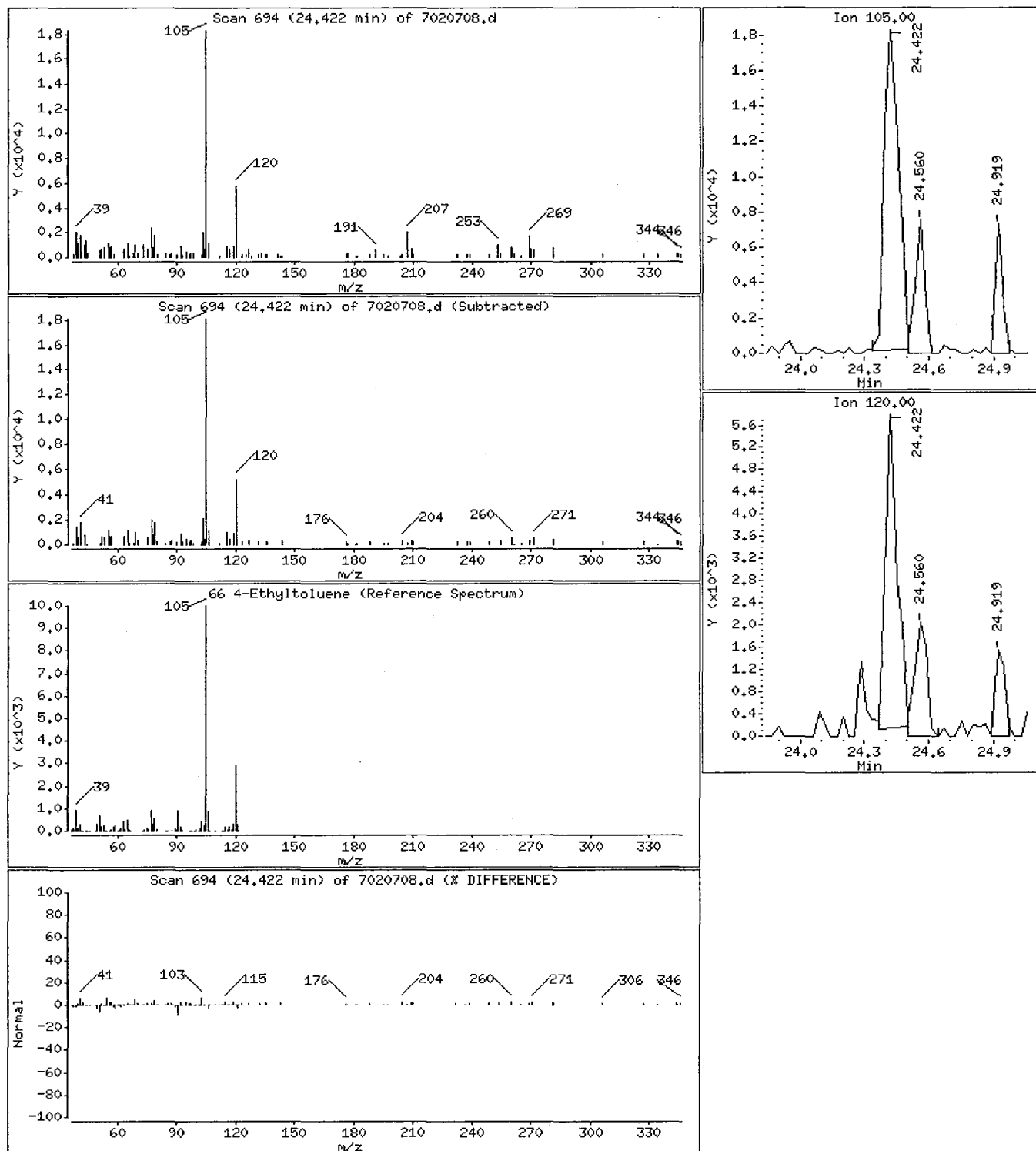
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.4392 PPEV



0221

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

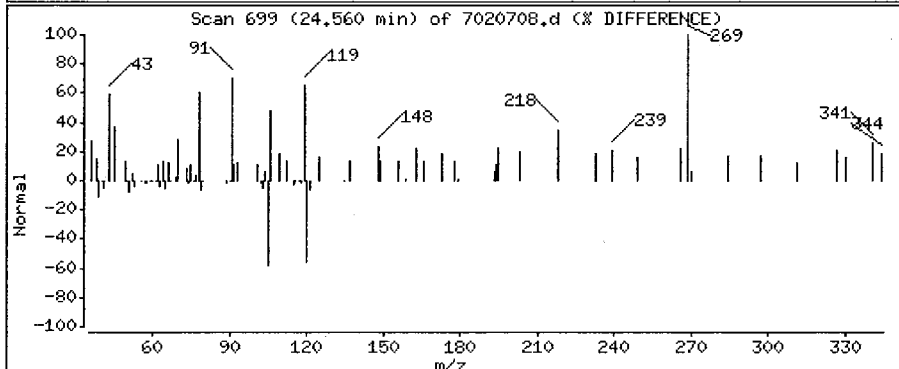
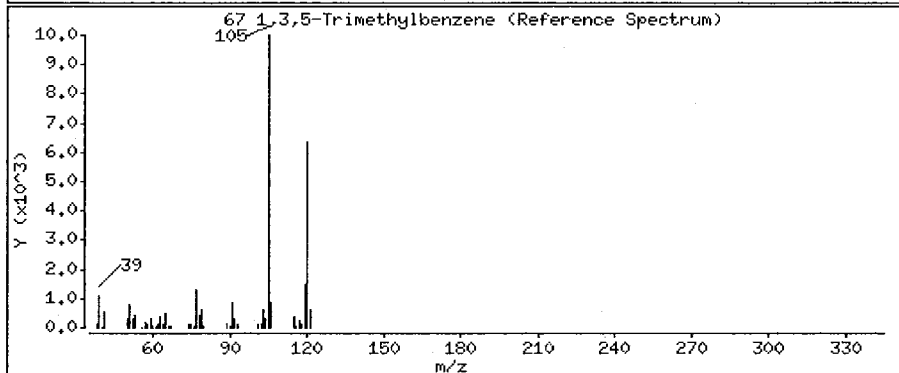
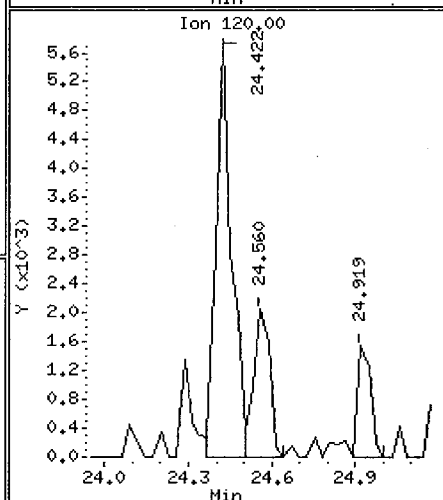
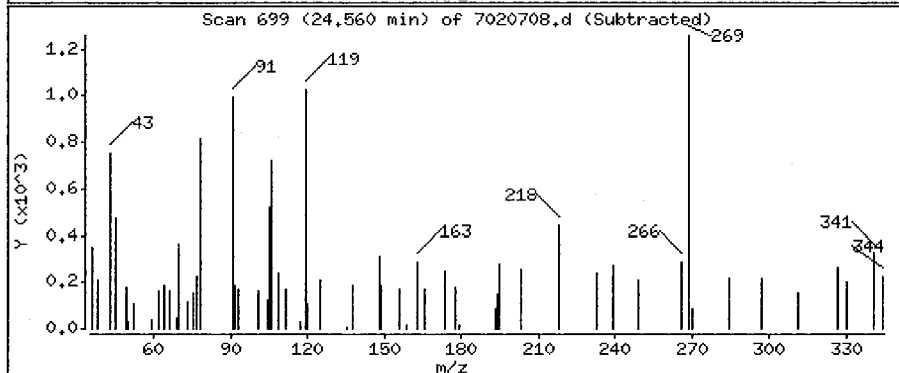
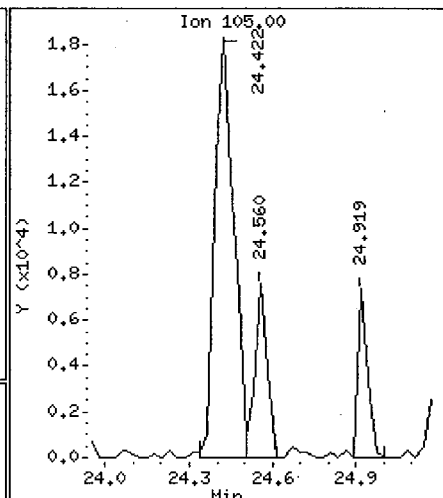
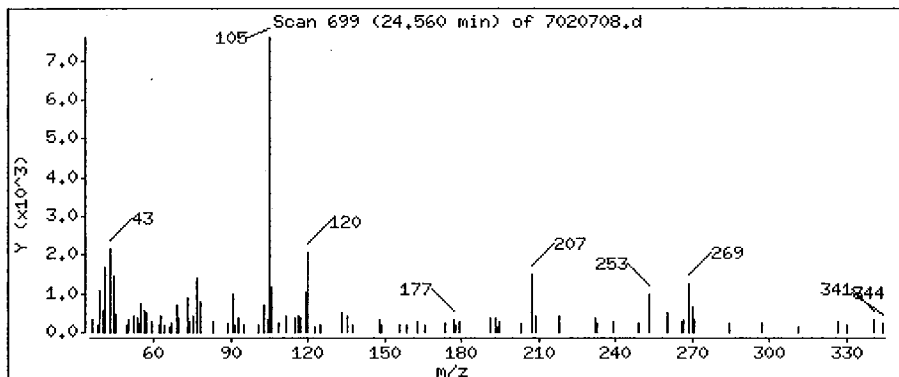
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1376 PPBV



0222

SCOEPAA00031894

Date : 08-FEB-2005 04:02

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#32130

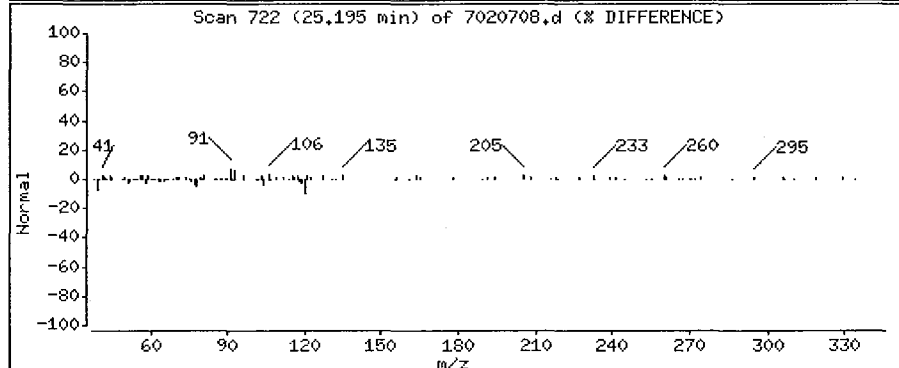
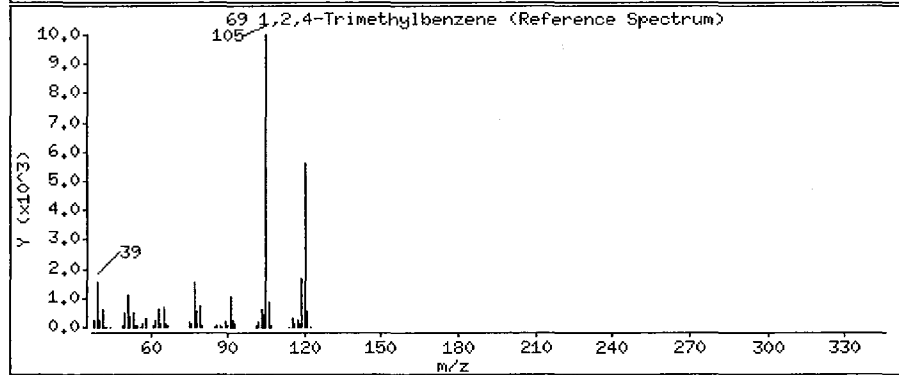
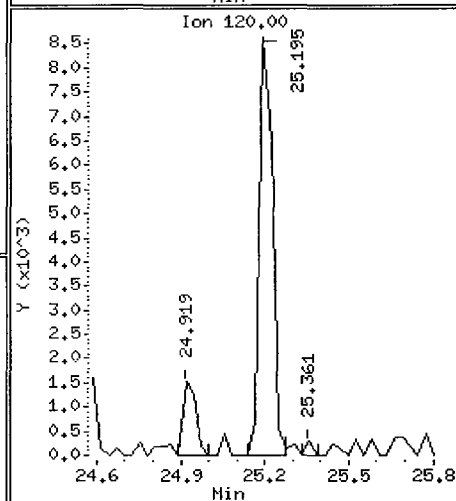
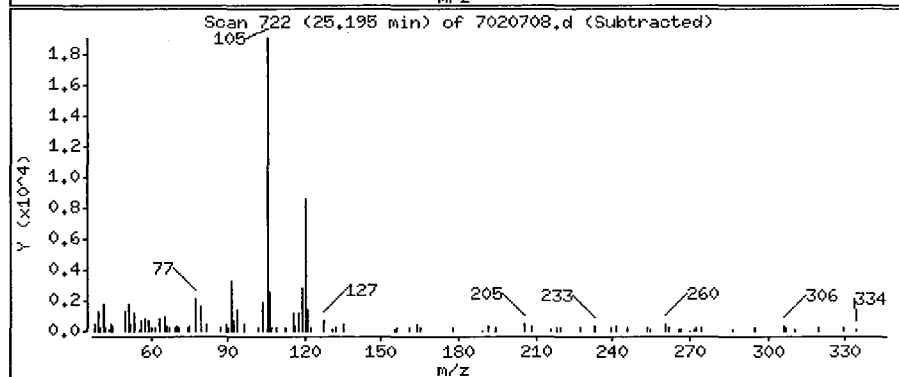
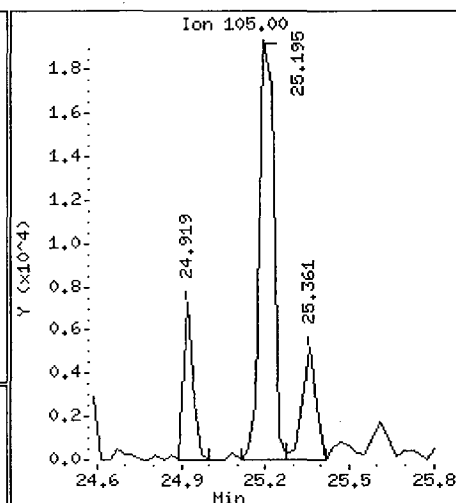
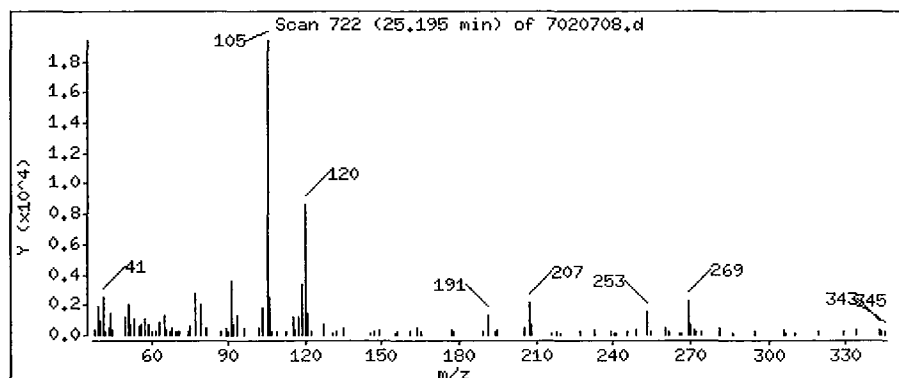
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.4124 PPBV



0223

AIR TOXICS LTD.

SAMPLE NAME: #7, Fab 2, SubFab, Lobby

ID#: 0502032-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020712	Date of Collection:	1/25/05
Dil. Factor:	1.75	Date of Analysis:	2/8/05 08:18 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.78	0.86	3.8
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.63	0.36	1.3
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	Not Detected	0.68	Not Detected
Chloroethane	0.18	Not Detected	0.46	Not Detected
Freon 11	0.18	0.72	0.98	4.0
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Carbon Tetrachloride	0.18	0.092 J	1.1	0.58 J
Benzene	0.18	0.77	0.56	2.5
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
Toluene	0.18	3.2	0.66	12
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.34	0.76	1.4
m,p-Xylene	0.18	1.1	0.76	5.0
o-Xylene	0.18	0.41	0.76	1.8
Styrene	0.18	0.068 J	0.74	0.29 J
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	0.10 J	0.86	0.50 J
1,2,4-Trimethylbenzene	0.18	0.37	0.86	1.8
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
Methylene Chloride	0.35	0.40	1.2	1.4
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
1,3-Butadiene	0.88	0.14 J	1.9	0.31 J
Acetone	0.88	5.2	2.1	12
Carbon Disulfide	0.88	0.22 J	2.7	0.67 J

AIR TOXICS LTD.

SAMPLE NAME: #7, Fab 2, SubFab, Lobby

ID#: 0502032-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020712	Date of Collection:	1/25/05
Dil. Factor:	1.75	Date of Analysis:	2/8/05 08:18 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.88	350 E	2.2	860 E
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	1.1	2.6	3.3
Hexane	0.88	0.67 J	3.1	2.4 J
Tetrahydrofuran	0.88	0.17 J	2.6	0.51 J
Cyclohexane	0.88	0.24 J	3.0	0.82 J
1,4-Dioxane	0.88	Not Detected	3.2	Not Detected
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	0.88	0.45 J	3.6	1.8 J
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected
Bromoform	0.88	Not Detected	9.0	Not Detected
4-Ethyltoluene	0.88	0.37 J	4.3	1.8 J
Ethanol	0.88	17	1.6	33
Methyl tert-butyl ether	0.88	Not Detected	3.2	Not Detected
Heptane	0.88	0.29 J	3.6	1.2 J
Cumene	0.88	Not Detected	4.3	Not Detected
Propylbenzene	0.88	0.084 J	4.3	0.41 J
Naphthalene	0.88	Not Detected	4.6	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	109	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020712.d
Lab Smp Id: 0502032-07A
Inj Date : 08-FEB-2005 08:18
Operator : kb Inst ID: msd7.i
Smp Info : 500mL Can#94948
Misc Info : 7.0"hg-5psi Clayton
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 11-Feb-2005 15:58 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
---	-----	-----	-----	-----	-----	-----	-----	-----	

* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	479636	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	372340			26.96- 126.96	77.63	
16.331	16.331	(1.000)	49	831157			126.50- 226.50	173.29	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2184189	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	374743			0.00- 66.78	17.16	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1512703	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	906498			9.26- 109.26	59.93	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	999243	10.1152	10.115	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	465328			0.17- 100.17	46.57	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1790714	9.60979	9.610	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	225665			0.00- 62.42	12.60	

0226

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1278738			21.00- 121.00	71.41

\$ 63 Bromofluorobenzene					CAS #: 460-00-4			
23.952	23.953	(1.082)	174	851268	10.8935	10.894	80.00- 120.00	100.00
23.952	23.953	(1.082)	95	1285546			103.23- 203.23	151.02
23.952	23.953	(1.082)	176	813101			46.33- 146.33	95.52

1 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8			
5.947	5.947	(0.364)	85	172340	0.44329	0.7757	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	46518			0.00- 82.62	26.99

4 Chloromethane					CAS #: 74-87-3			
7.356	7.356	(0.450)	50	40442	0.36082	0.6314	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	11996			0.00- 84.65	29.66

7 1,3-Butadiene					CAS #: 106-99-0			
8.295	8.295	(0.508)	54	8192	0.08017	0.1403	80.00- 120.00	100.00(a)
8.295	8.295	(0.508)	39	14979			48.03- 148.03	182.85

10 Trichlorofluoromethane/Fr11					CAS #: 75-69-4			
11.056	11.056	(0.677)	101	139184	0.41171	0.7205	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	90395			13.43- 113.43	64.95

12 Ethanol					CAS #: 64-17-5			
12.050	12.050	(0.738)	45	473164	9.97184	17.451	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	95935			0.00- 76.71	20.28
12.050	12.050	(0.738)	46	188980			0.00- 90.17	39.94

16 Acetone					CAS #: 67-64-1			
12.823	12.824	(0.785)	43	752165	2.97608	5.208	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	211496			0.00- 78.78	28.12

18 2-Propanol					CAS #: 67-63-0			
13.210	13.238	(0.809)	45	47604763	199.278	348.74	80.00- 120.00	100.00(A)
13.238	13.238	(0.811)	43	18710384			0.00- 69.75	39.30
13.238	13.238	(0.811)	59	3353677			0.00- 53.72	7.04

17 Carbon Disulfide					CAS #: 75-15-0			
12.906	12.906	(0.790)	76	38615	0.12301	0.2153	80.00- 120.00	100.00(a)

20 Methylene Chloride					CAS #: 75-09-2			
13.735	13.735	(0.841)	84	23057	0.23053	0.4034	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	28299			102.91- 202.91	122.73
13.735	13.735	(0.841)	51	8495			0.00- 93.42	36.84

0227

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	73083	0.38562	0.6748	80.00- 120.00	100.00(a)	
14.563	14.563	(0.892)	43	58960			15.23- 115.23	80.68	
14.563	14.563	(0.892)	86	10431			0.00- 65.23	14.27	

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	33305	0.63591	1.113	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	177603			1005.34-1105.34	533.26	
15.972	15.972	(0.978)	57	10338			0.00- 89.21	31.04	

23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	14297	0.09837	0.1722	80.00- 120.00	100.00(a)	
16.331	16.331	(1.000)	71	5115			0.00- 82.81	35.78	
16.358	16.331	(1.002)	72	1577			0.00- 86.54	11.03	

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	14180	0.13532	0.2368	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	31262			93.37- 193.37	220.47	
16.662	16.662	(1.020)	41	27598			30.80- 130.80	194.63	

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	9067	0.05264	0.09212	80.00- 120.00	100.00(a)	
16.855	16.883	(1.032)	117	11204			63.50- 163.50	123.57	

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	139974	0.44158	0.7728	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	33717			0.00- 72.07	24.09	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	30861	0.16674	0.2918	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	17539			1.42- 101.42	56.83	
17.435	17.435	(0.980)	100	4825			0.00- 66.93	15.63	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	52636	0.25707	0.4499	80.00- 120.00	100.00(a)	
19.727	19.727	(1.109)	58	16694			0.00- 87.49	31.72	
19.727	19.727	(1.109)	85	9332			0.00- 66.91	17.73	

46 Toluene						CAS #: 108-88-3			
20.003	20.004	(1.124)	91	656001	1.80638	3.161	80.00- 120.00	100.00	
20.003	20.004	(1.124)	92	409698			11.80- 111.80	62.45	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	23802	0.19164	0.3354	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	78539			294.68- 394.68	329.97	

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	99194	0.65301	1.143	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	205173			168.06- 268.06	206.84	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	29078	0.23506	0.4113	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	67110			176.46- 276.46	230.79	

59 Styrene						CAS #: 100-42-5			
23.096	23.097	(1.044)	104	7444	0.03887	0.06803	80.00- 120.00	100.00(a)	
23.096	23.097	(1.044)	78	8835			6.85- 106.85	118.69	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	19925	0.04821	0.08438	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	4381			0.00- 69.13	21.99	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	69948	0.21222	0.3714	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	22824			0.00- 74.43	32.63	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	17007	0.05816	0.1018	80.00- 120.00	100.00(a)	
24.560	24.560	(1.110)	120	7655			0.00- 89.22	45.01	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	59610	0.21308	0.3729	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	22543			0.00- 87.29	37.82	

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020712.d
Lab Smp Id: 0502032-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: kb
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m
Misc Info: 7.0"hg-5psi Clayton

Calibration Date: 08-FEB-2005
Calibration Time: 01:00
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	542490	325494	759486	479636	-11.59
38 1,4-Difluorobenze	2679294	1607576	3751012	2184189	-18.48
54 Chlorobenzene-d5	1721557	1032934	2410180	1512703	-12.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0230

SCOEPAA00031902

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-07feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-07A	
Level: LOW	Operator: kb
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 7.0"hg-5psi Clayton	

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.115	101.15	70-130
\$ 45 Toluene-d8	10.000	9.610	96.10	70-130
\$ 63 Bromofluorobenzene	10.000	10.894	108.94	70-130

0231

Date : 08-FEB-2005 08:18

Client ID:

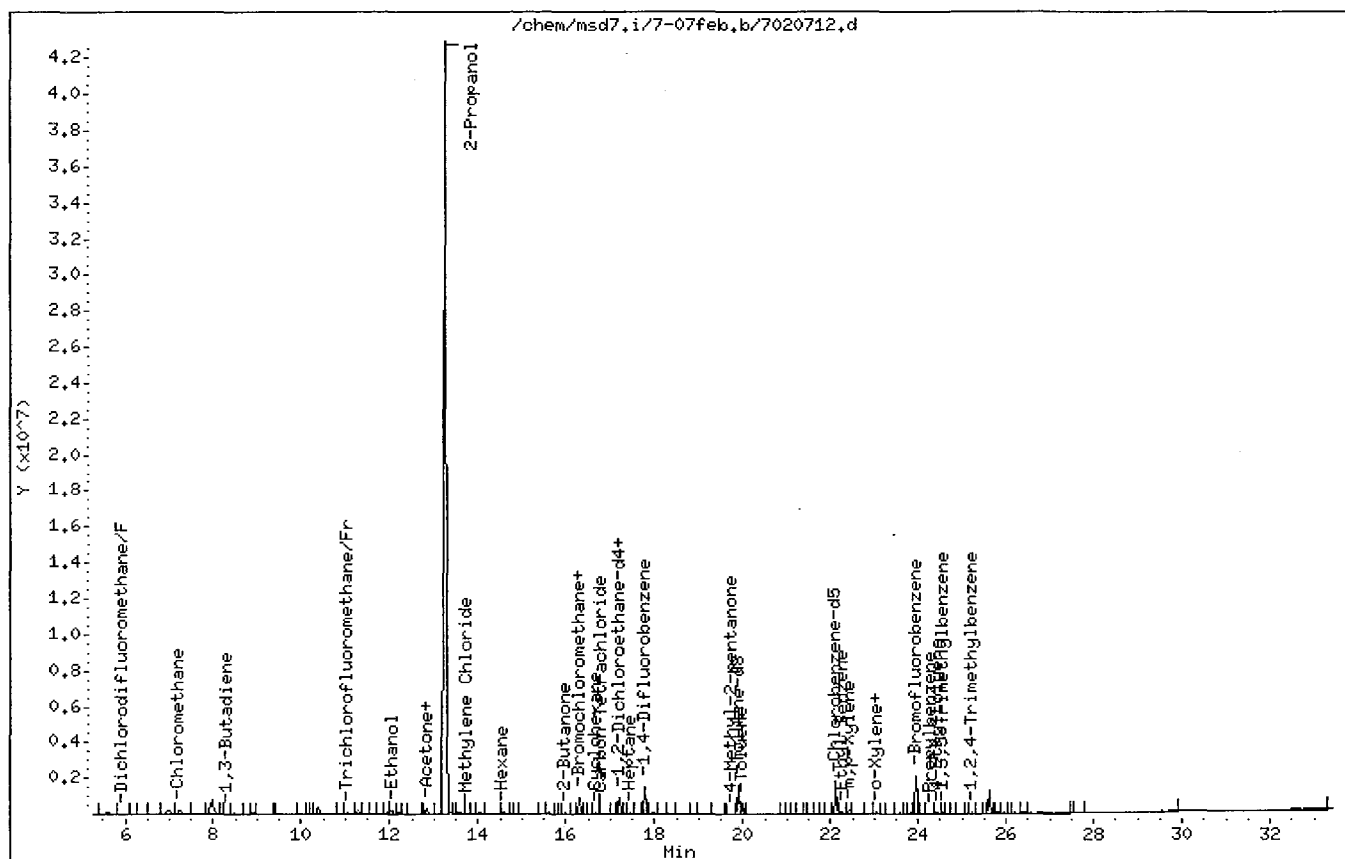
Instrument: msd7.i

Sample Info: 500mL Can#94948

Operator: kb

Column phase: RTX-624

Column diameter: 0.32



0232

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

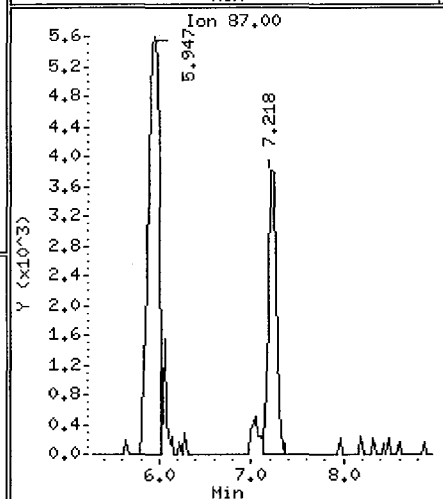
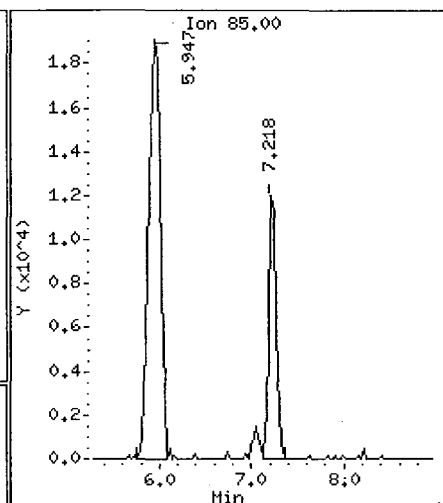
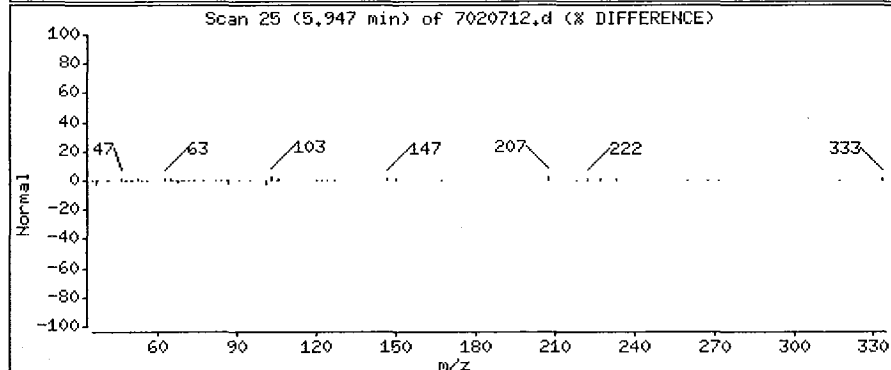
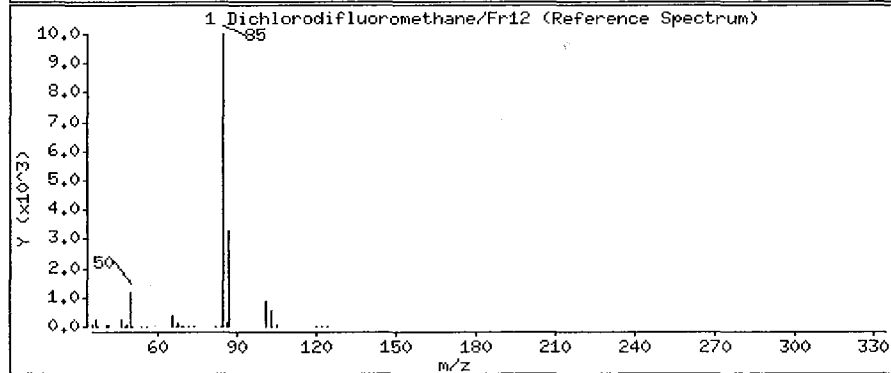
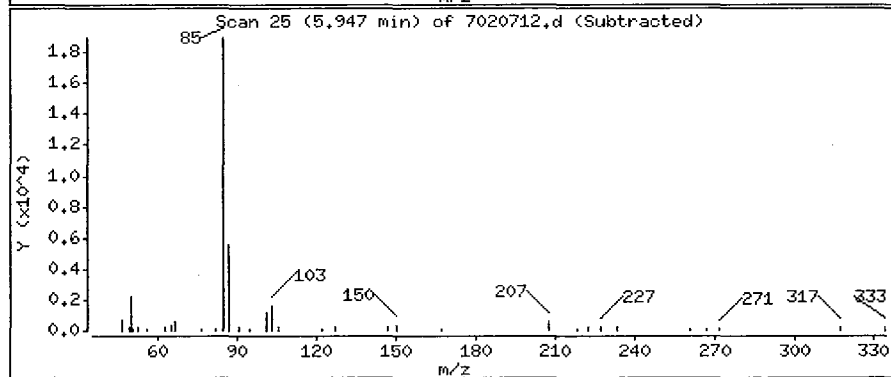
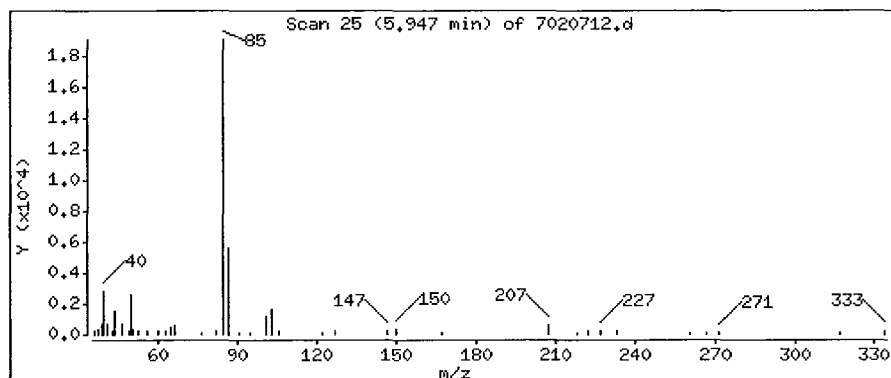
Operator: kb

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.7757 PPBV



0233

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

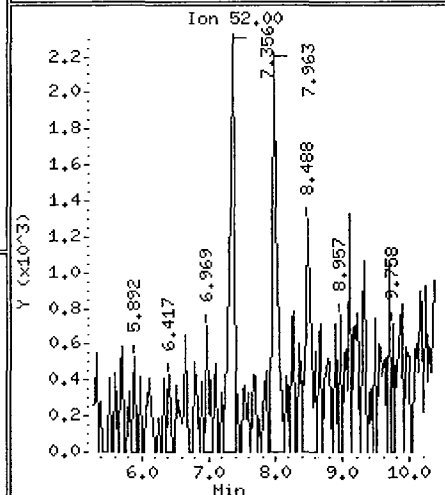
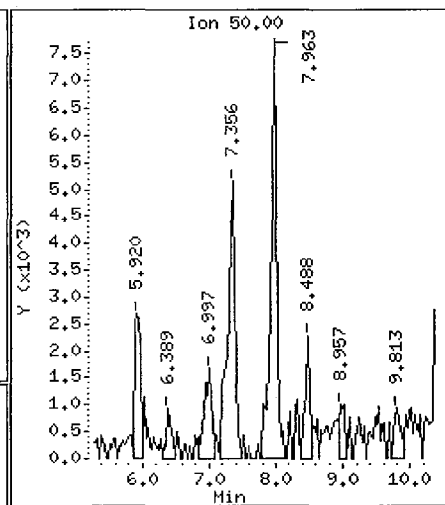
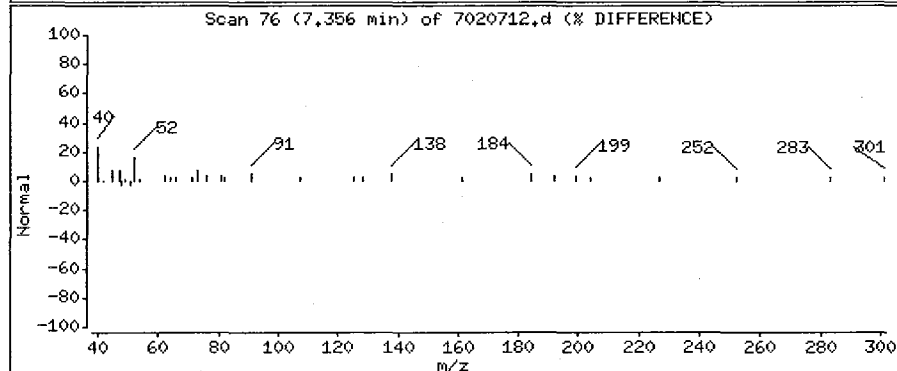
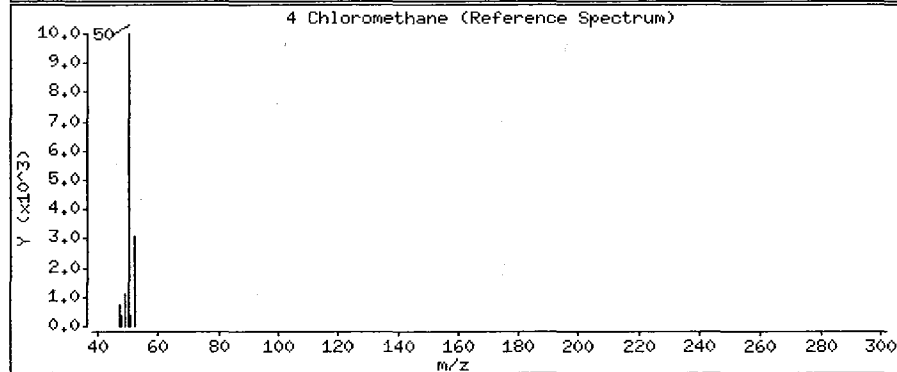
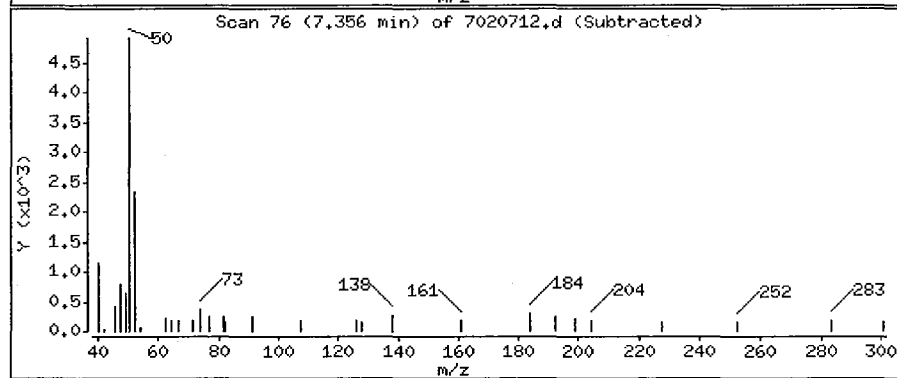
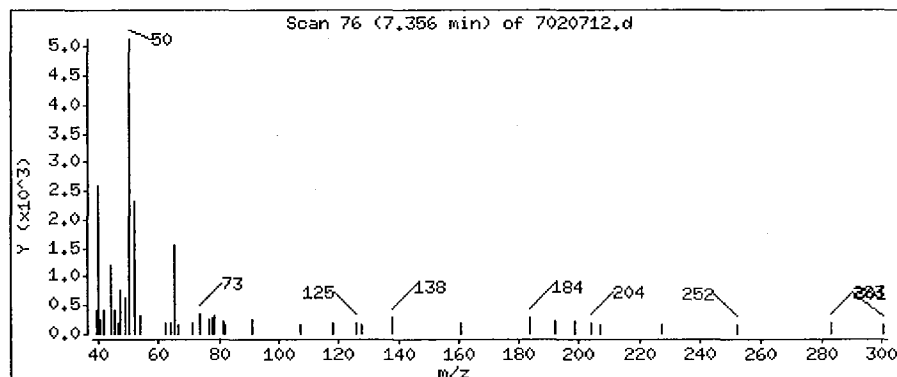
Operator: kb

Column phase: RTx-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.6314 PPBV



0234

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

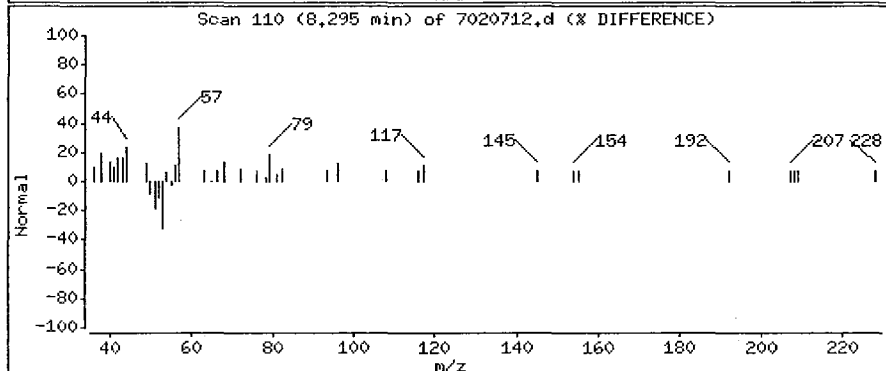
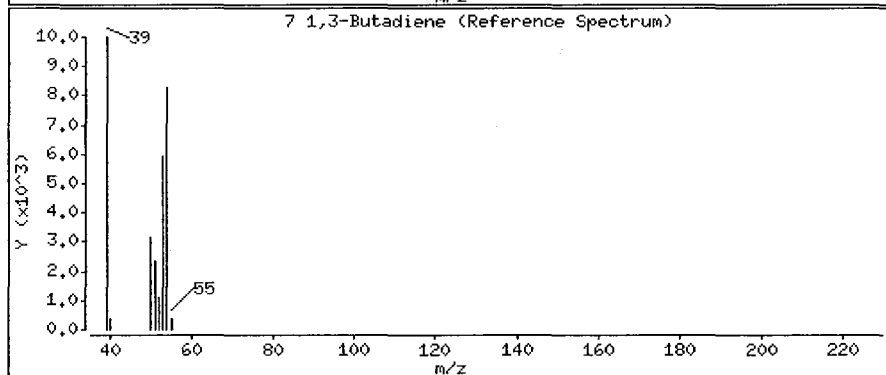
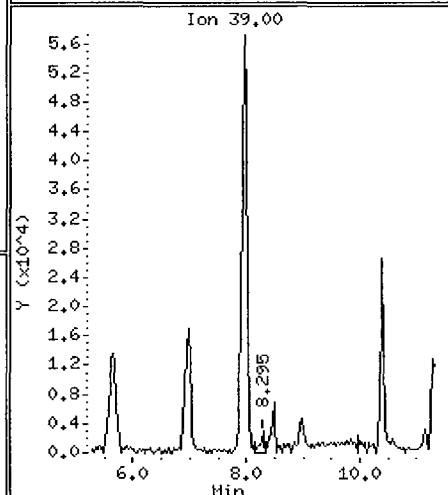
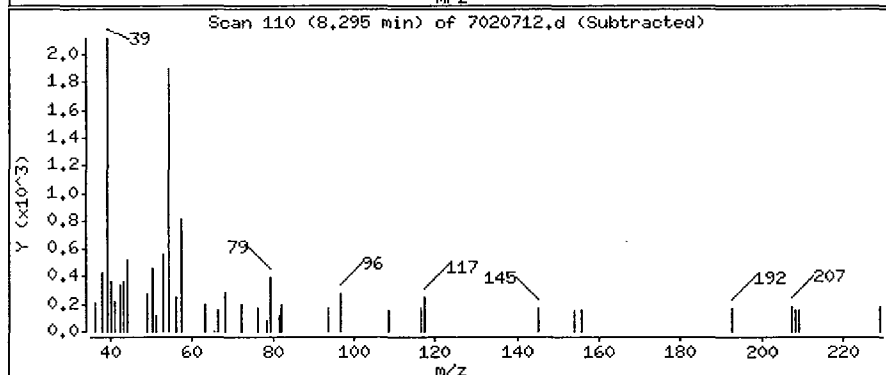
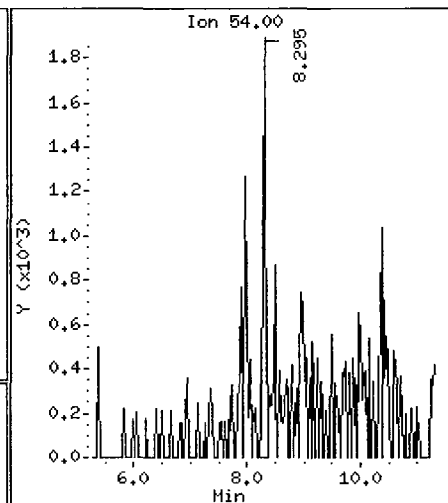
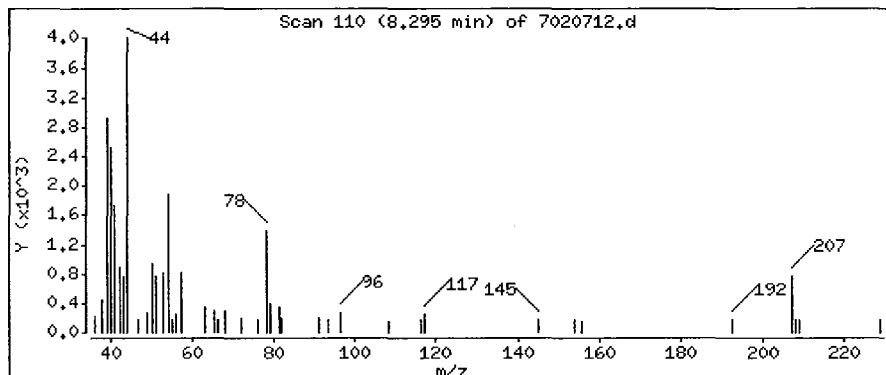
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1403 PPBV



0235

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

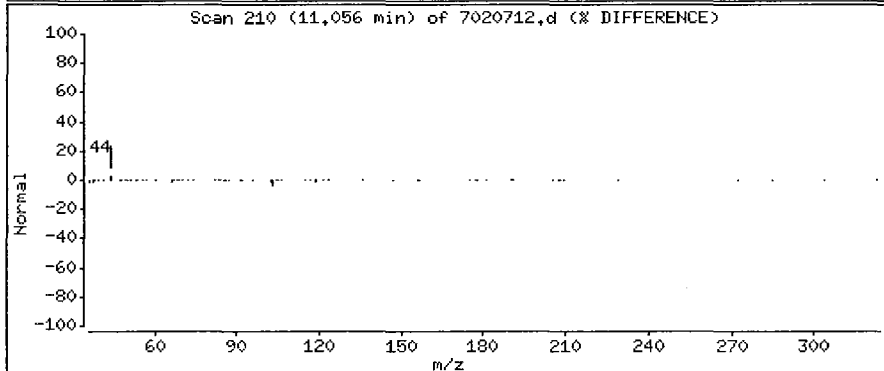
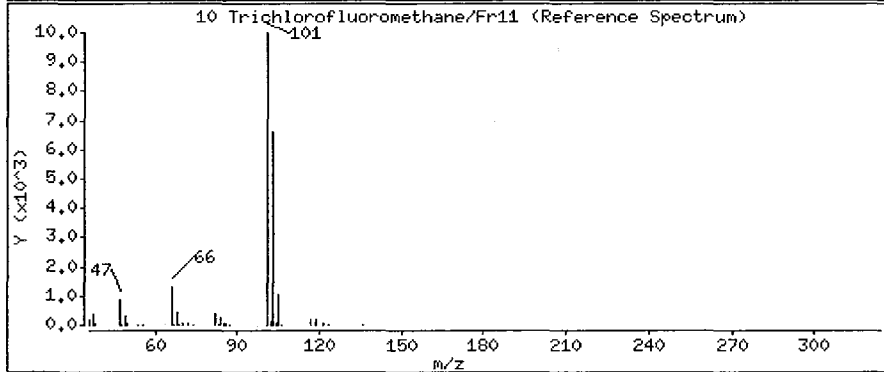
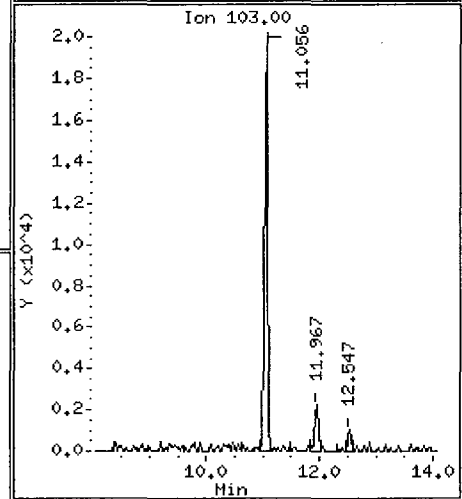
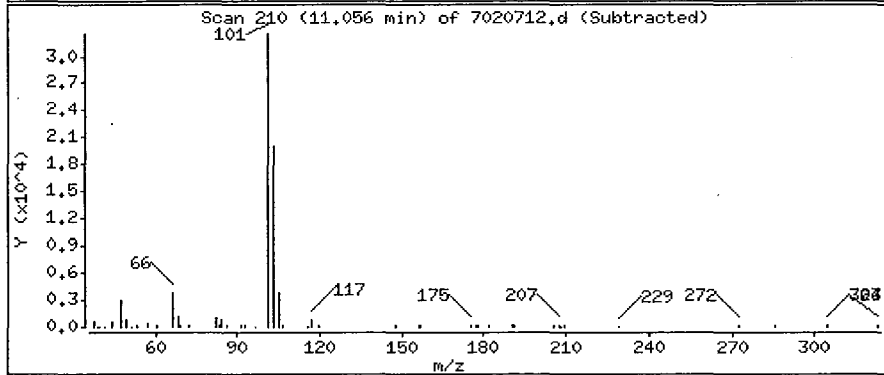
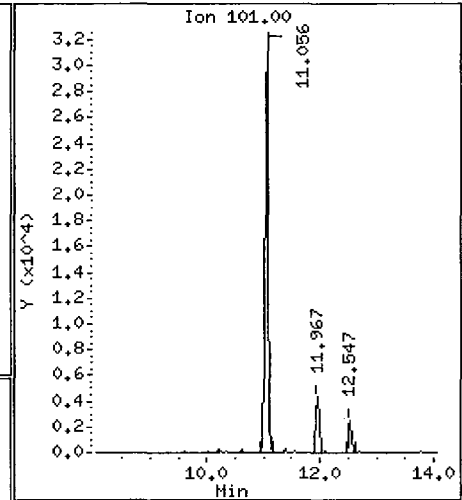
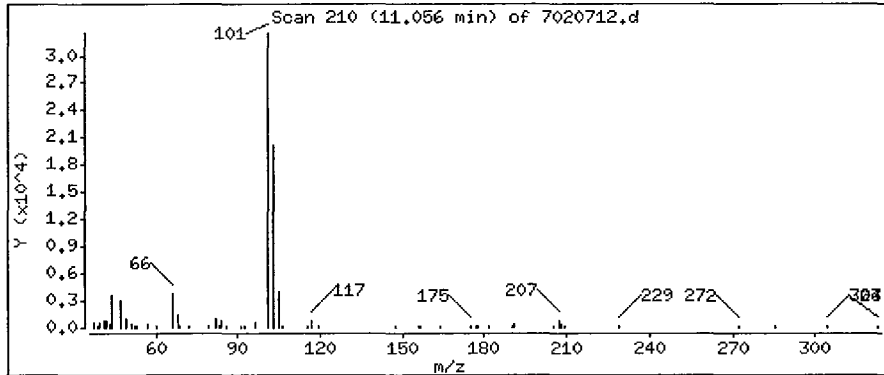
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.7205 PPBV



0236

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

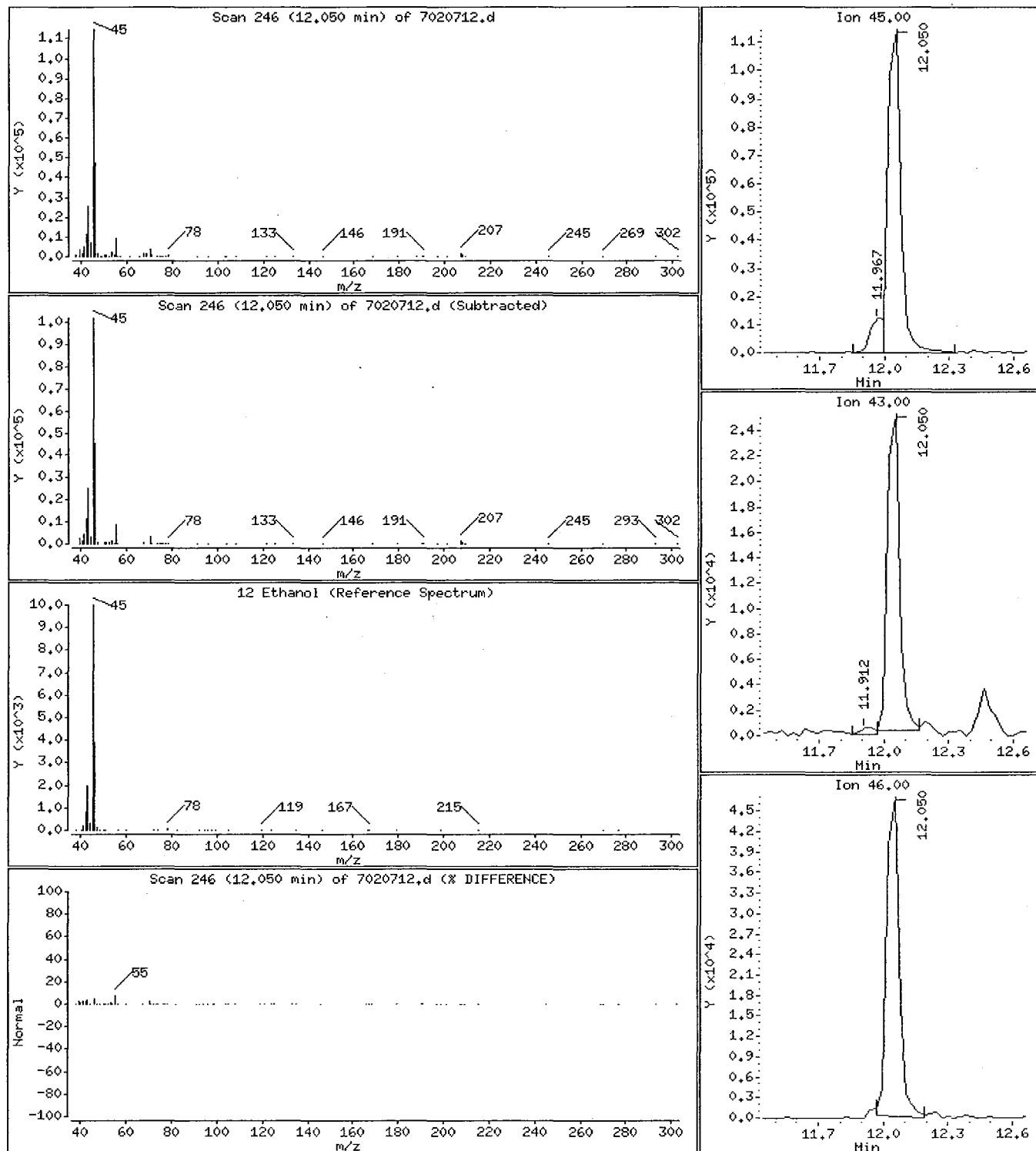
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 17.451 PPBV



0237

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

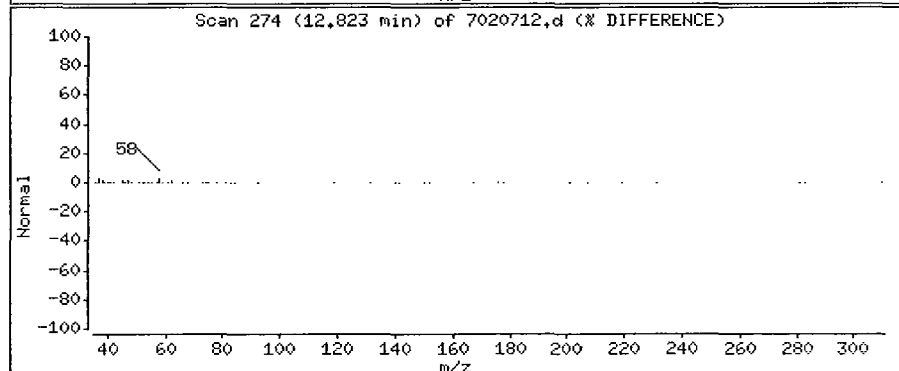
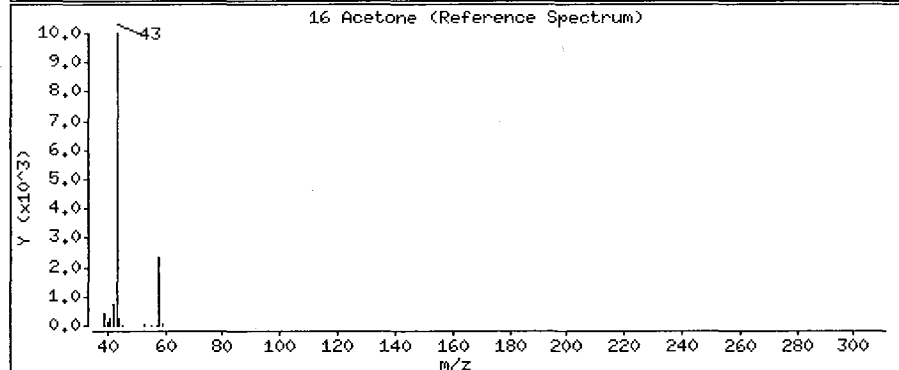
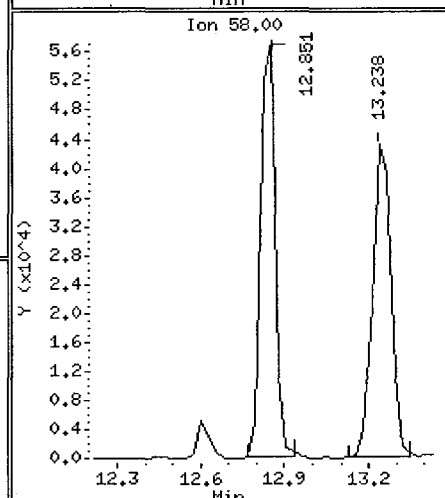
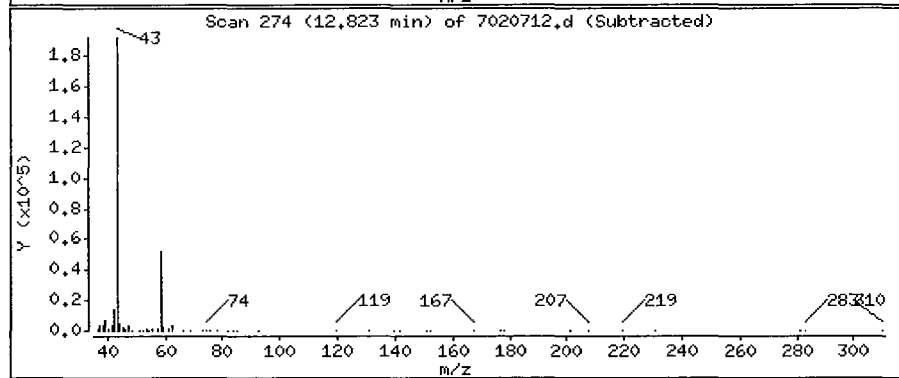
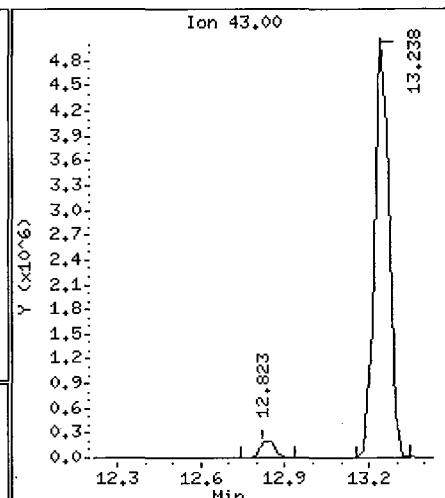
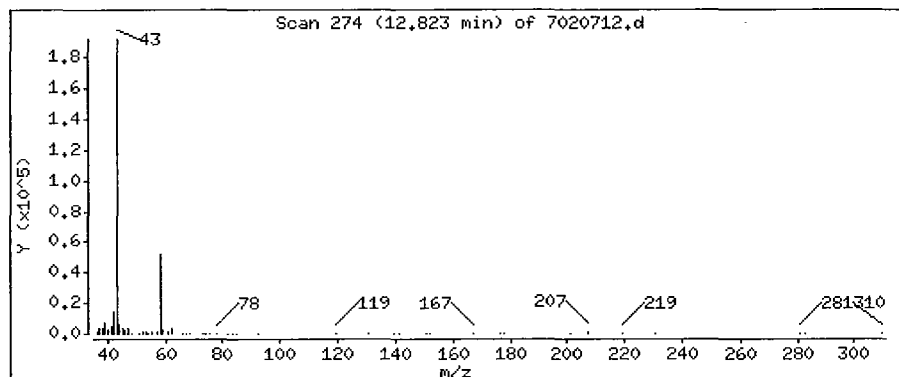
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 5,208 PPBV



0238

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

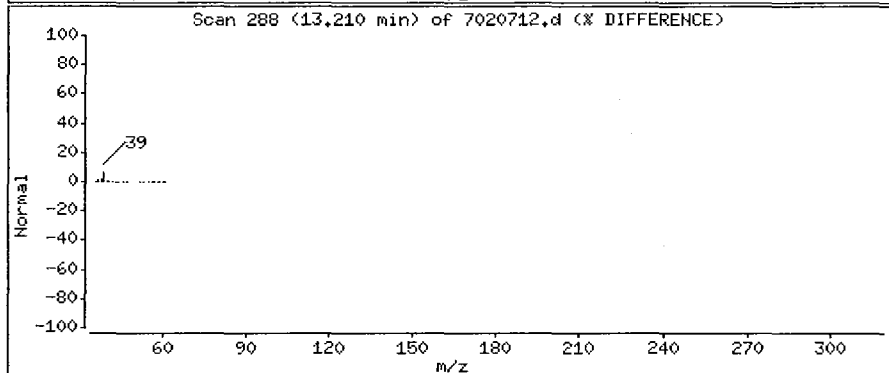
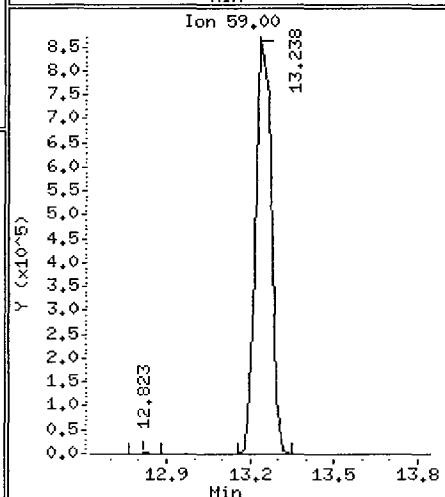
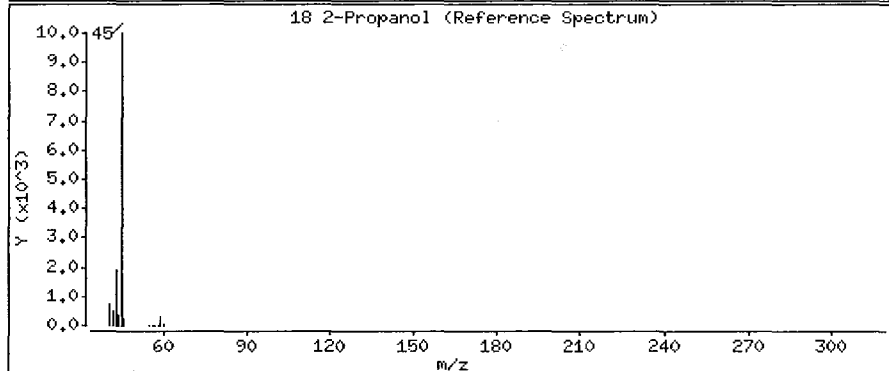
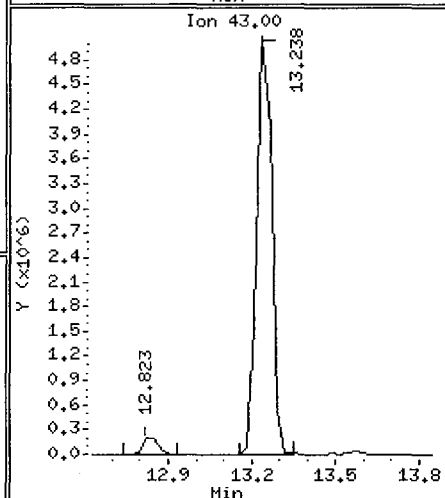
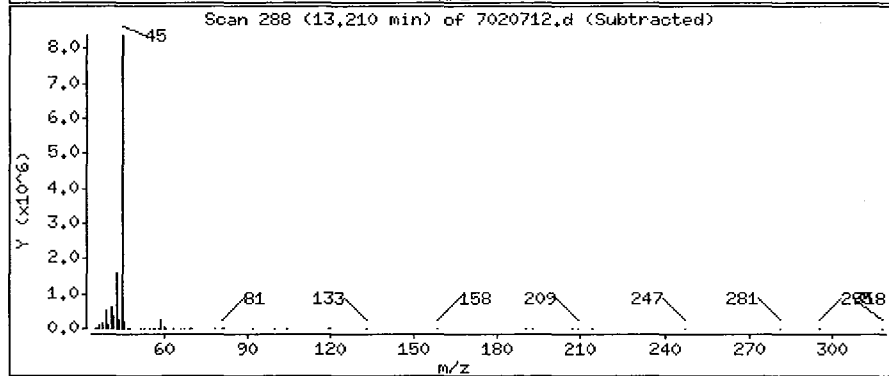
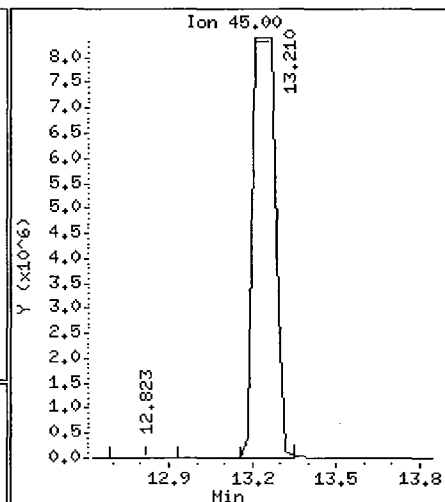
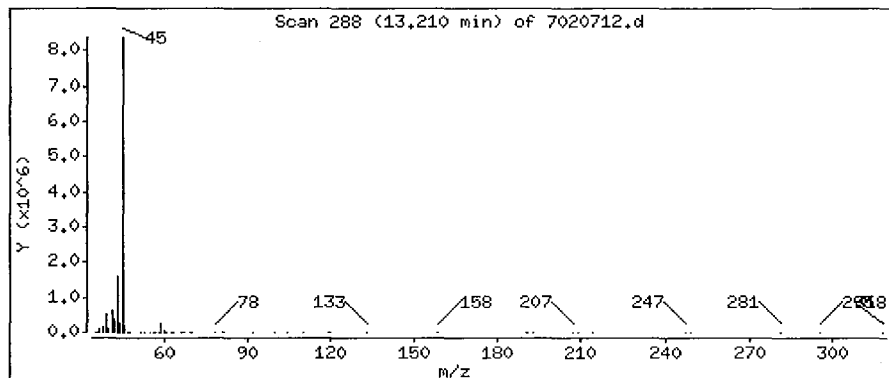
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 348.74 PPBV



0239

Data File: /chem/msd7.i/7-07feb.b/7020712.d

Page 9

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

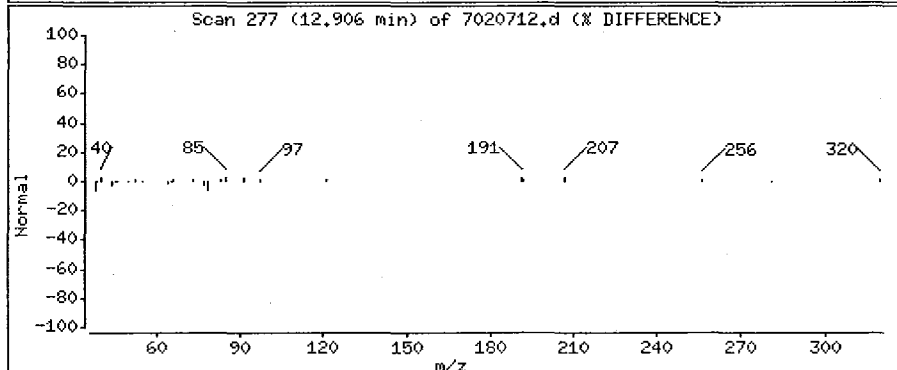
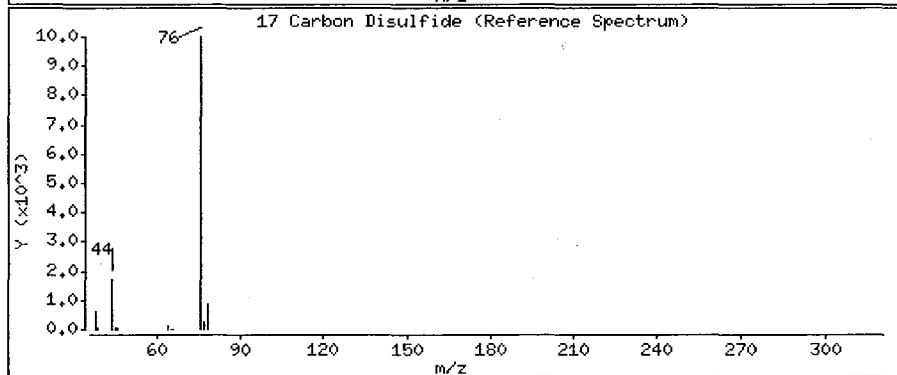
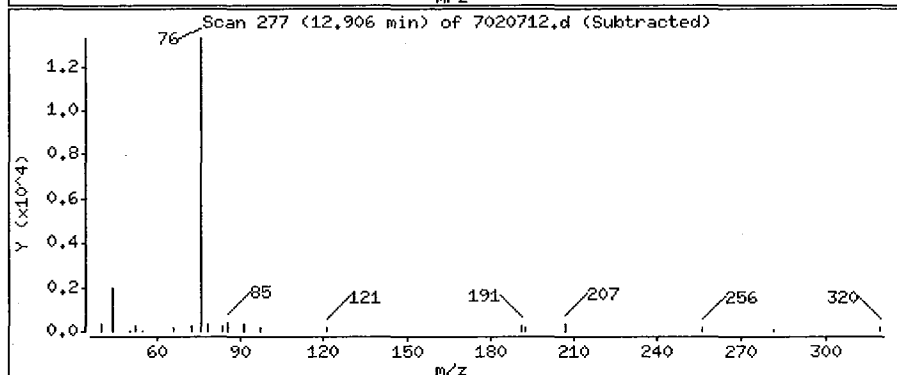
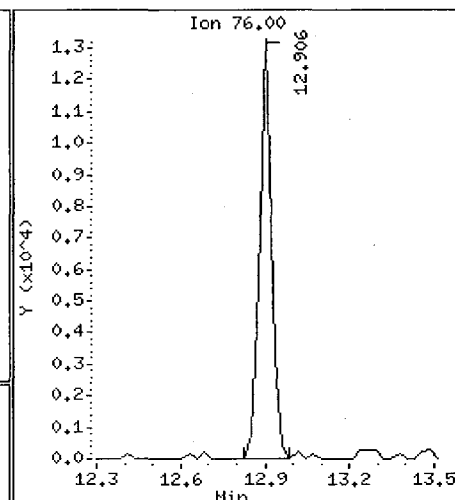
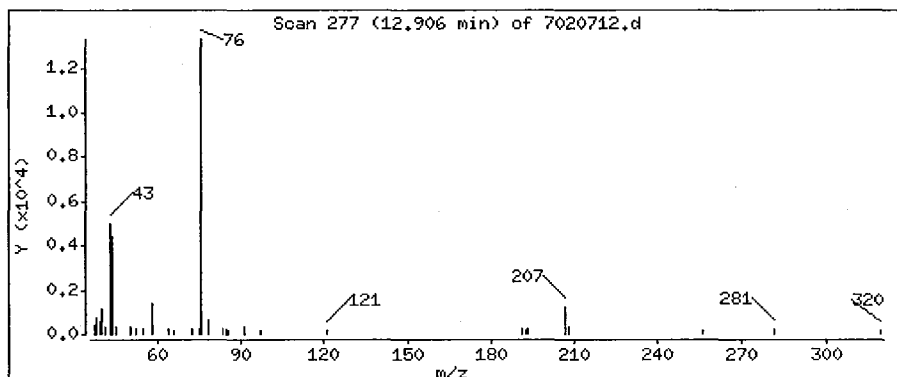
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Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.2153 PPBV



0240

SCOEPAA00031912

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

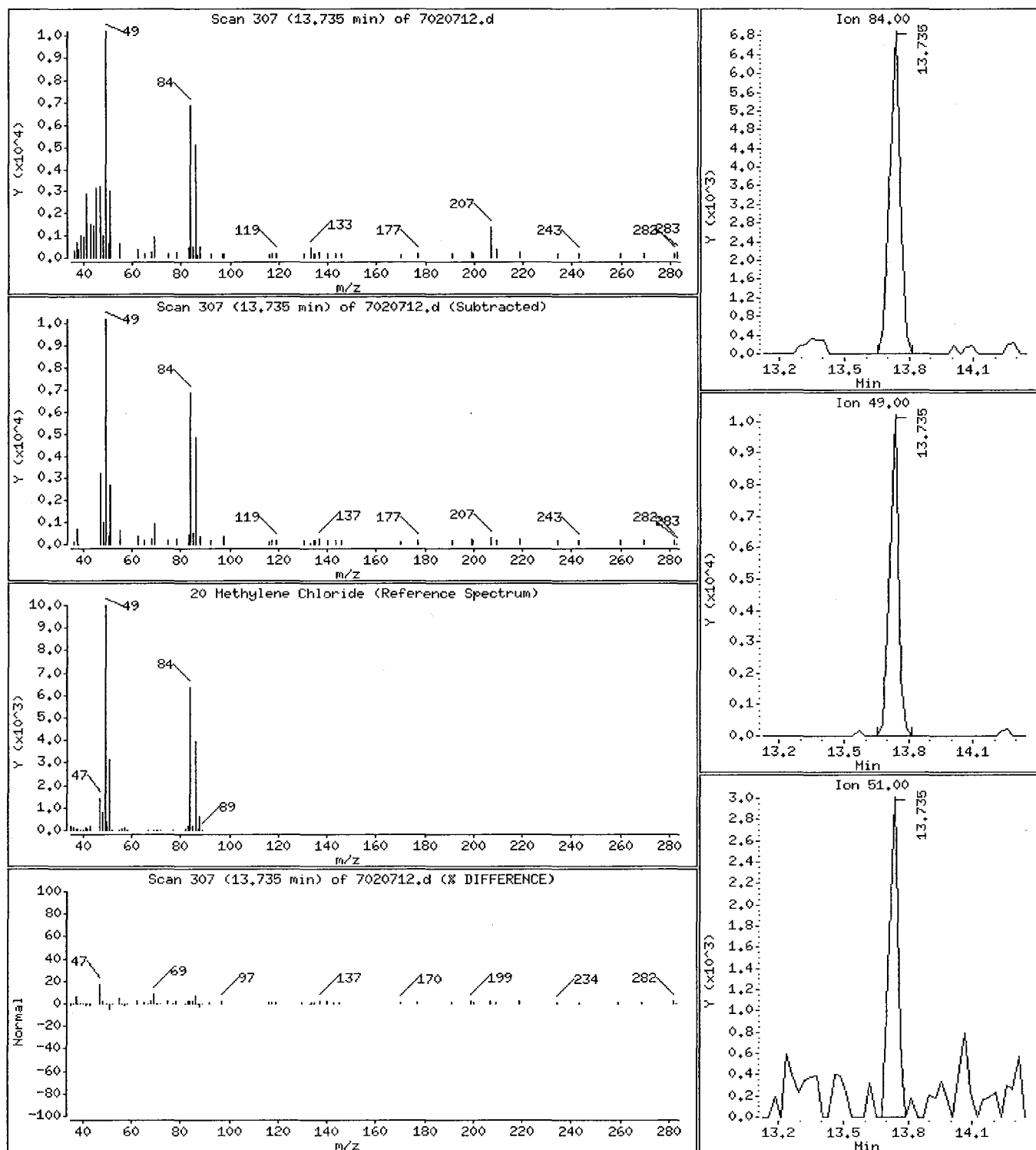
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.4034 PPBV



0241

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

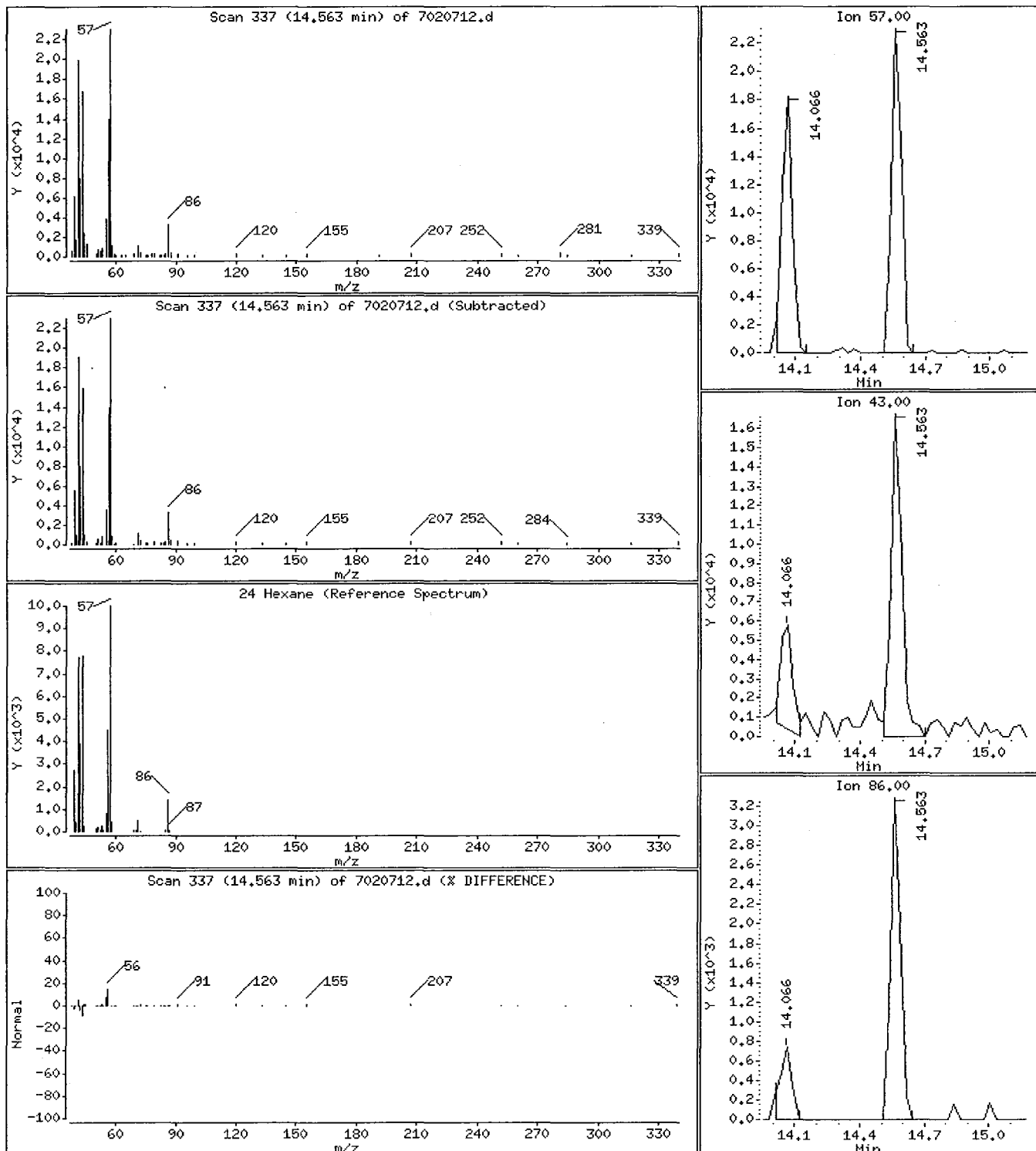
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.6748 PPBV



0242

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

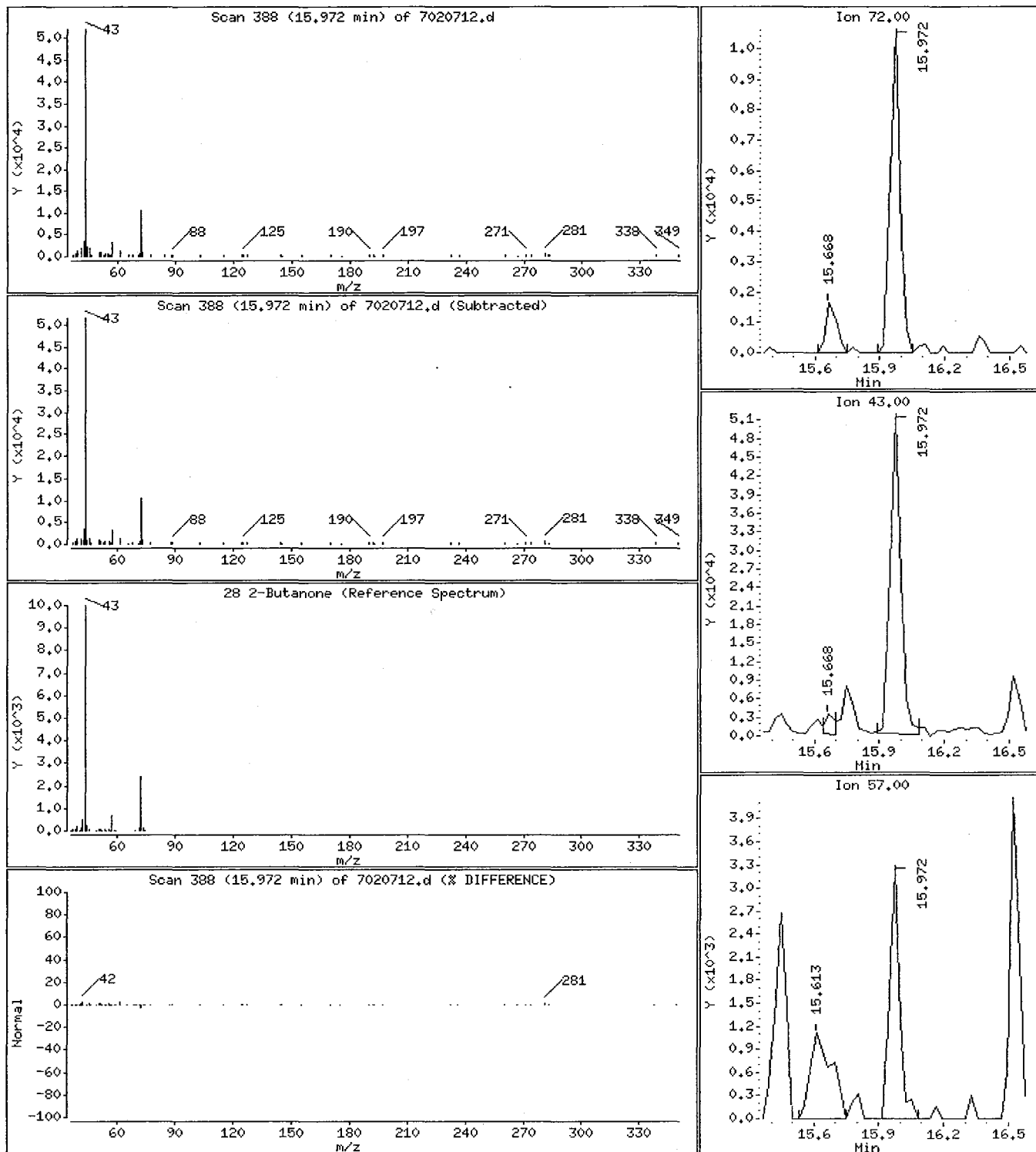
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.113 PPBV



0243

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

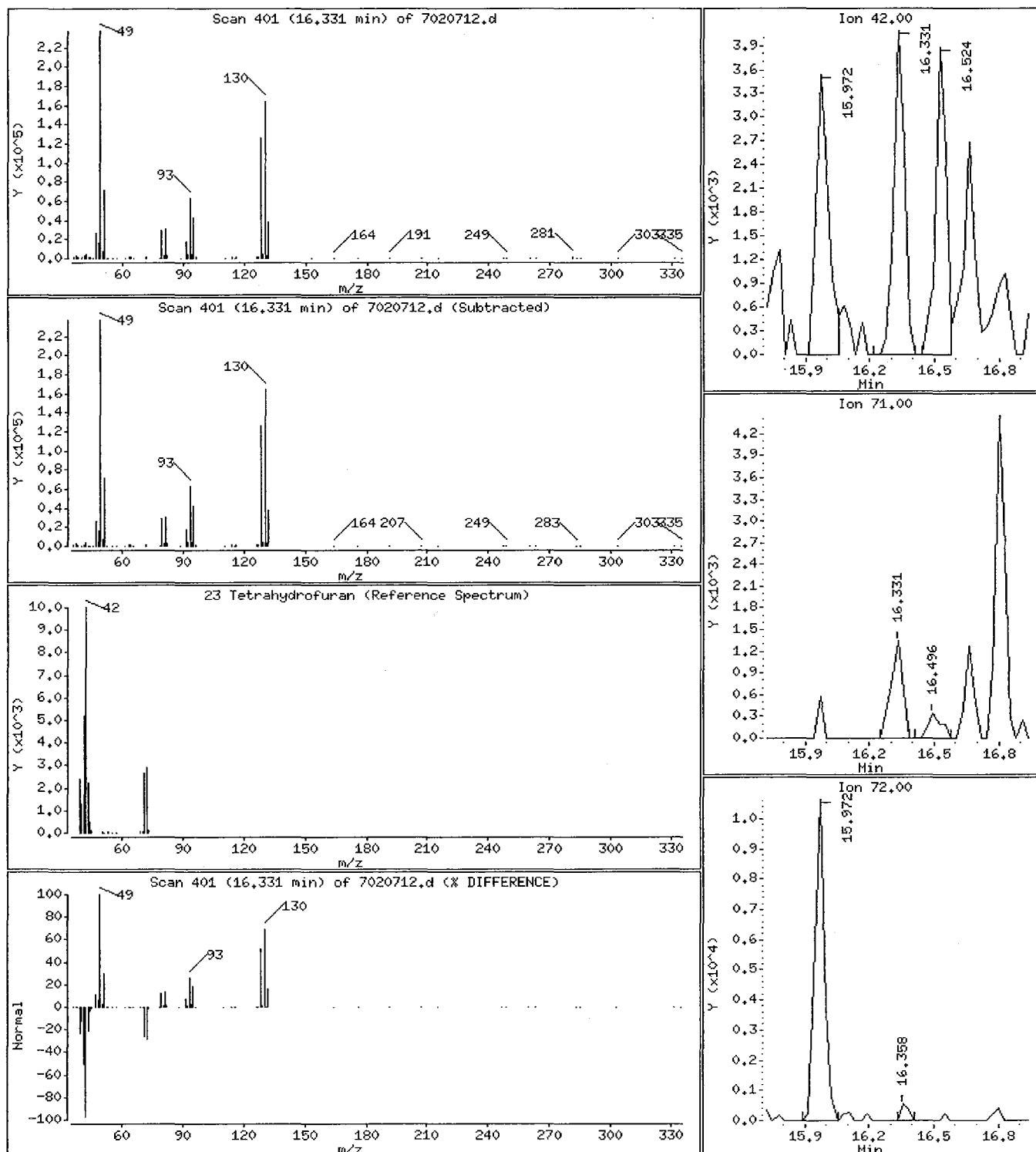
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1722 PPBV



0244

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

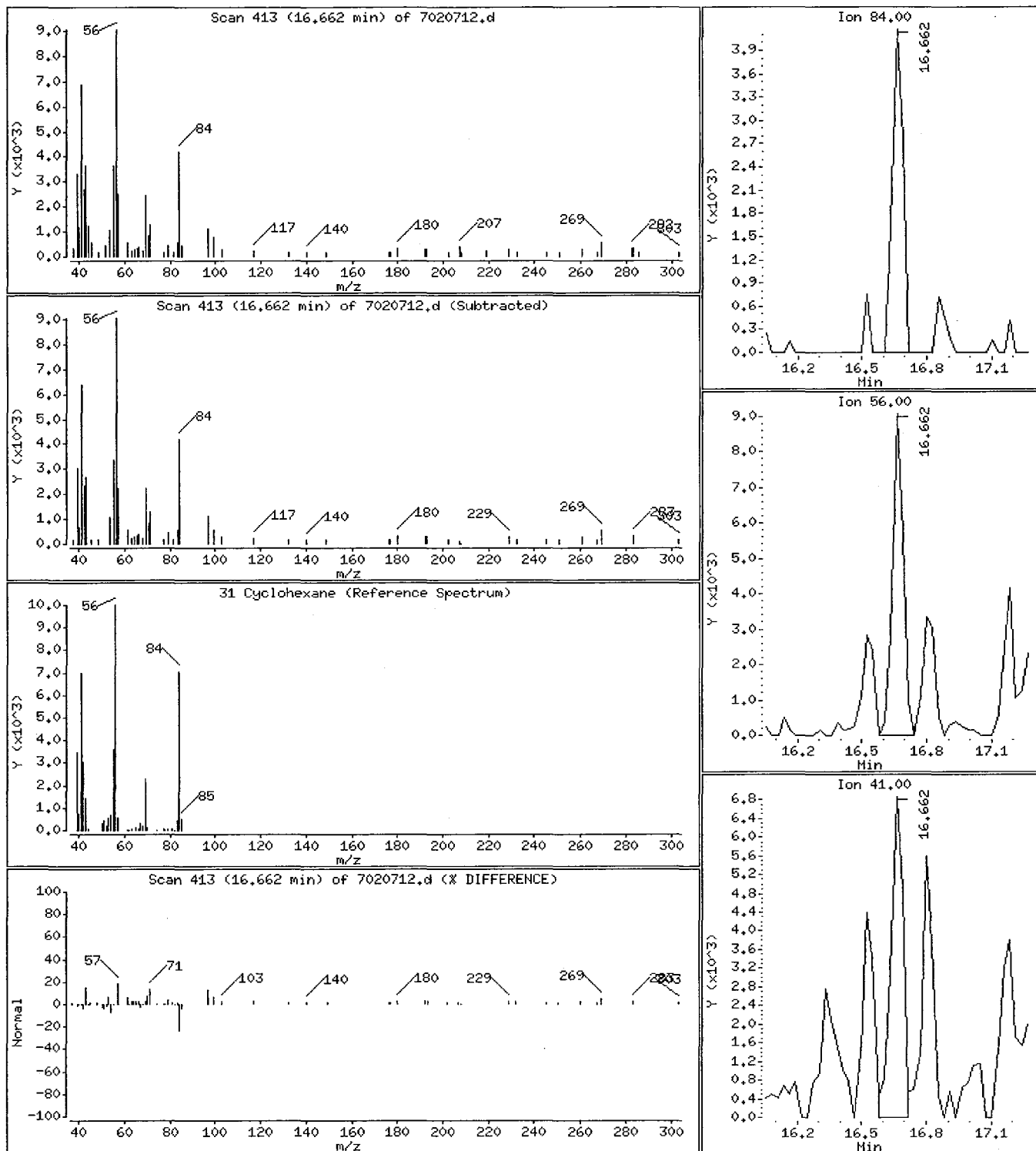
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.2368 PPBV



0245

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

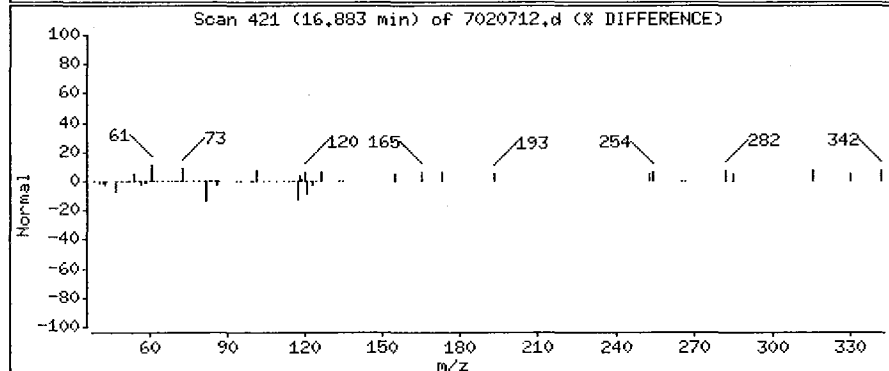
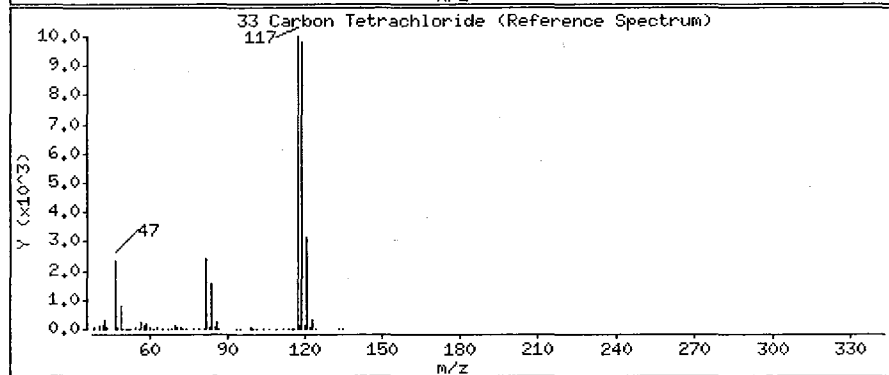
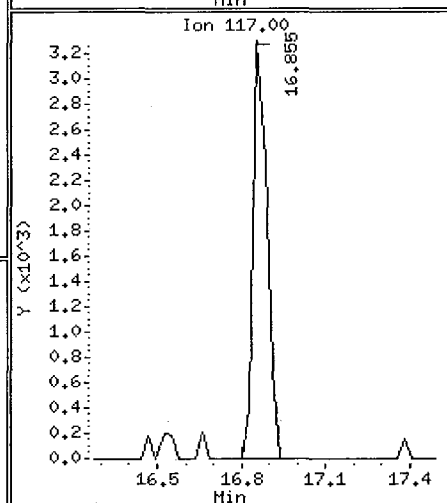
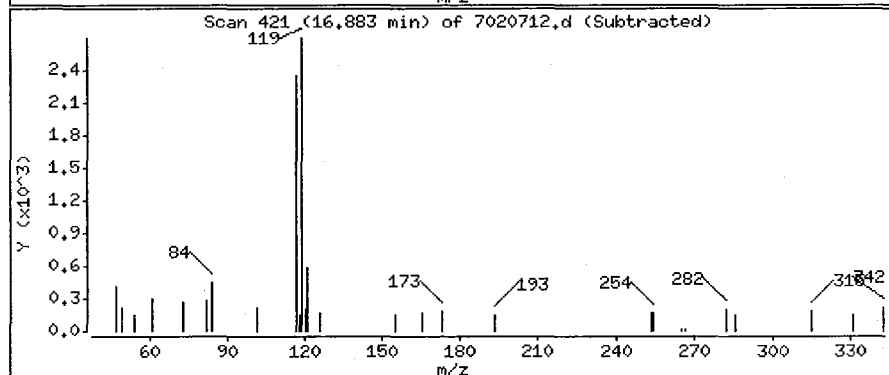
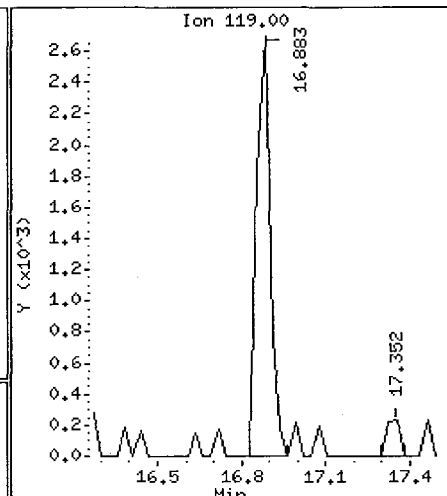
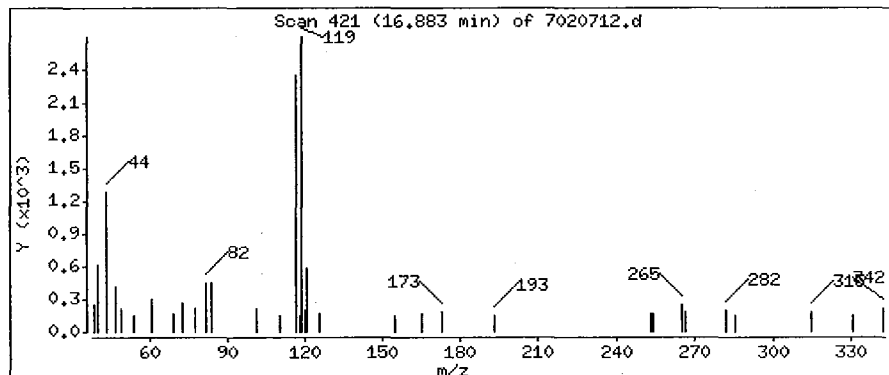
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.09212 PPBV



0246

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

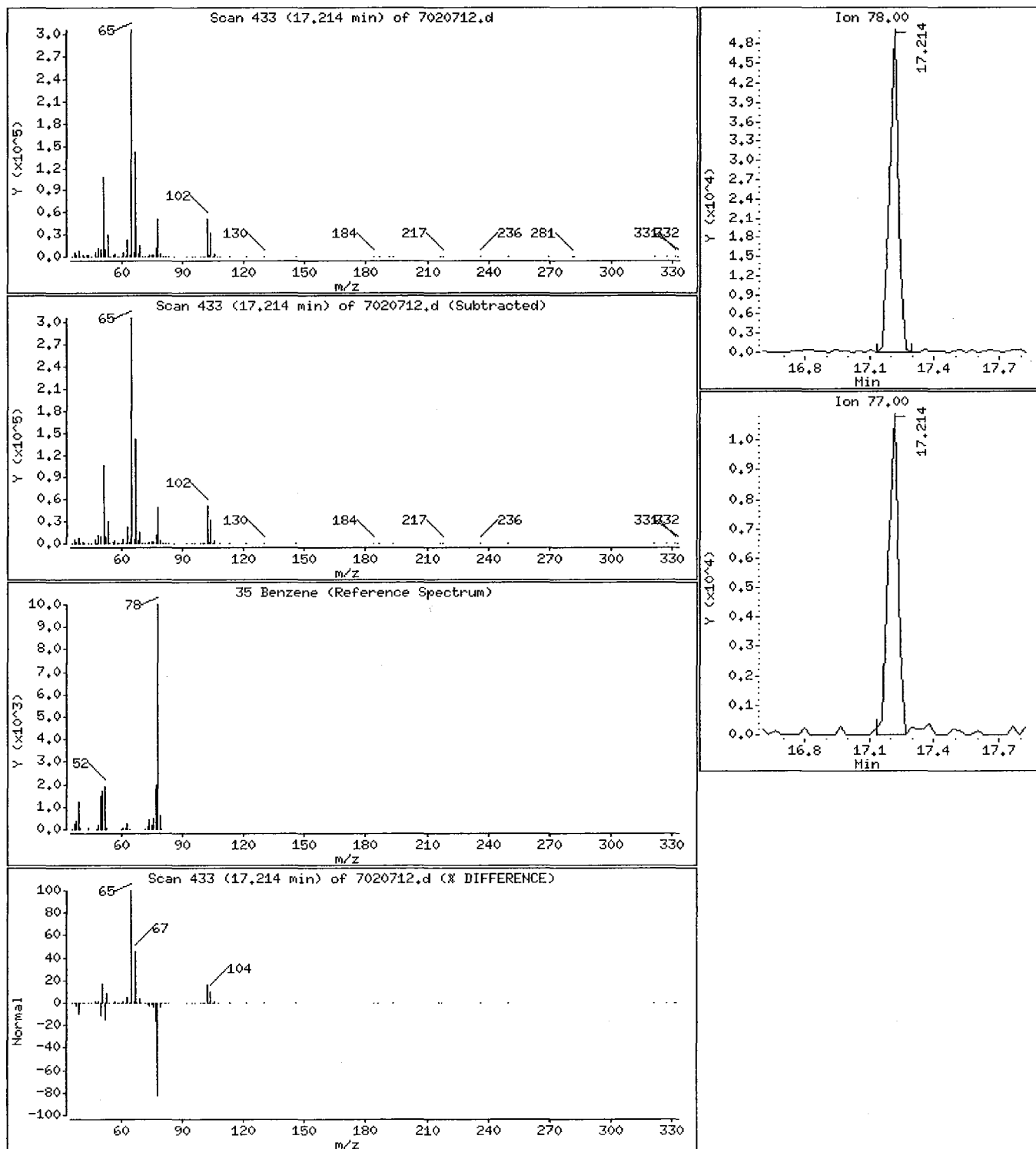
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.7728 PPBV



0247

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

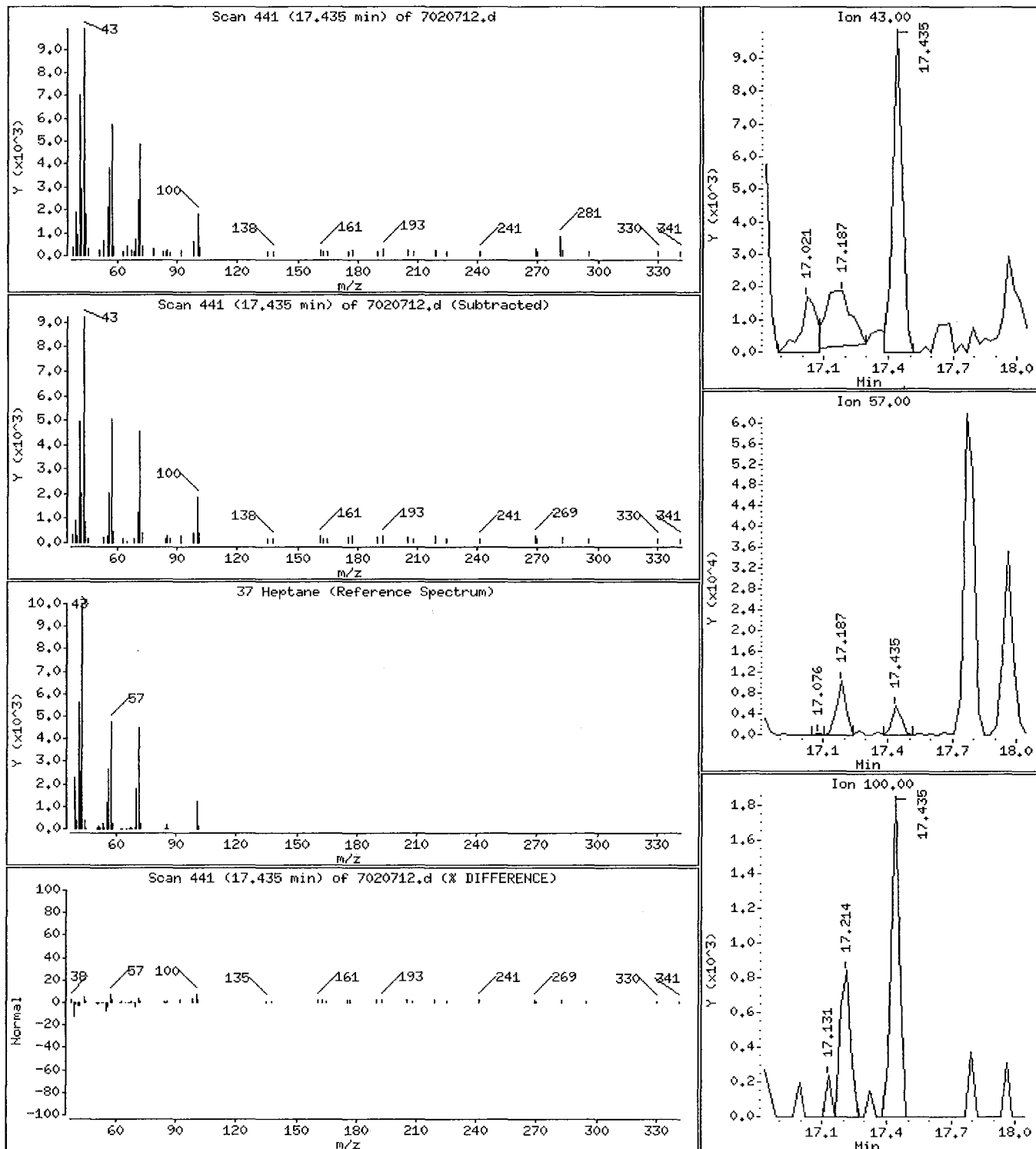
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.2918 PPBV



0248

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

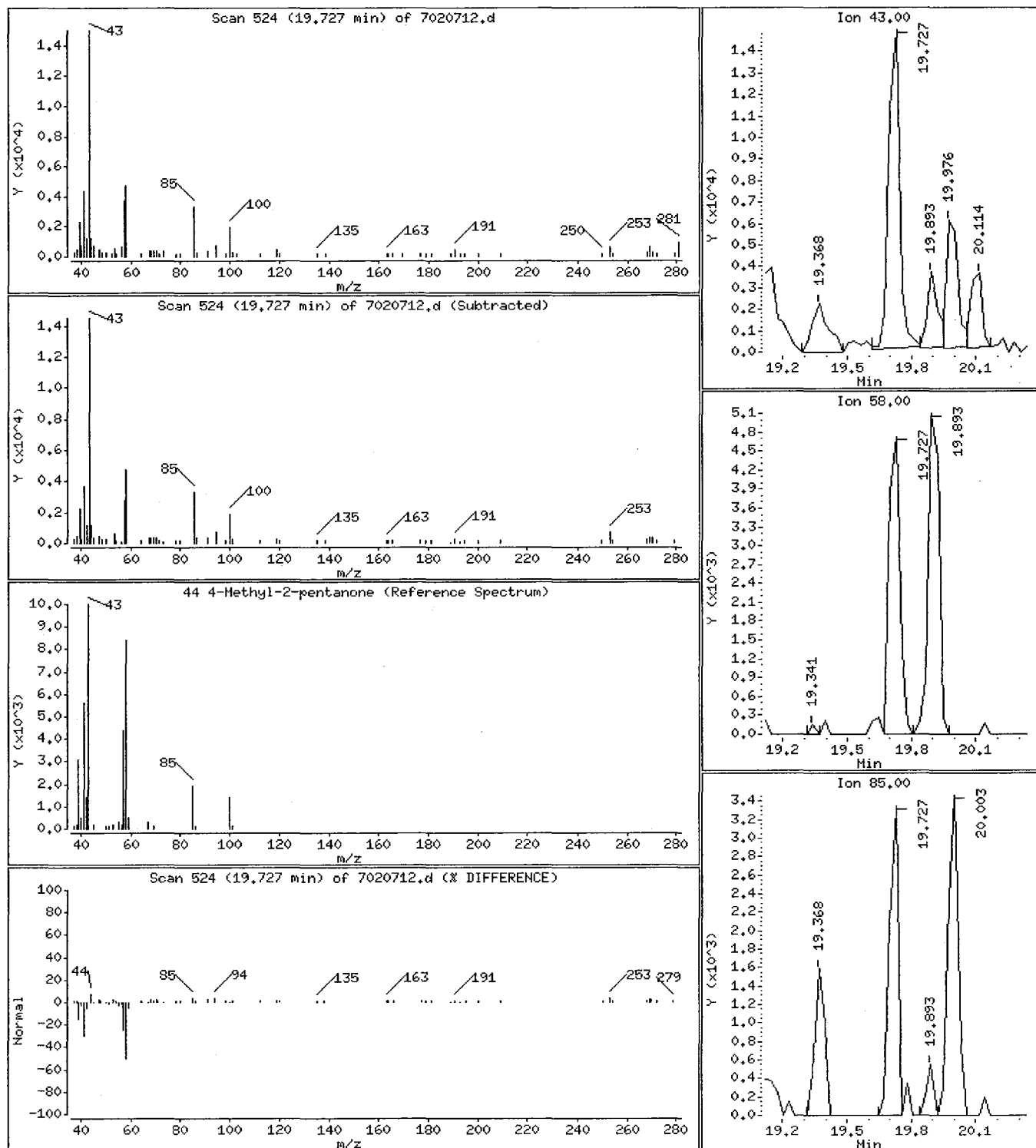
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.4499 PPBV



0249

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

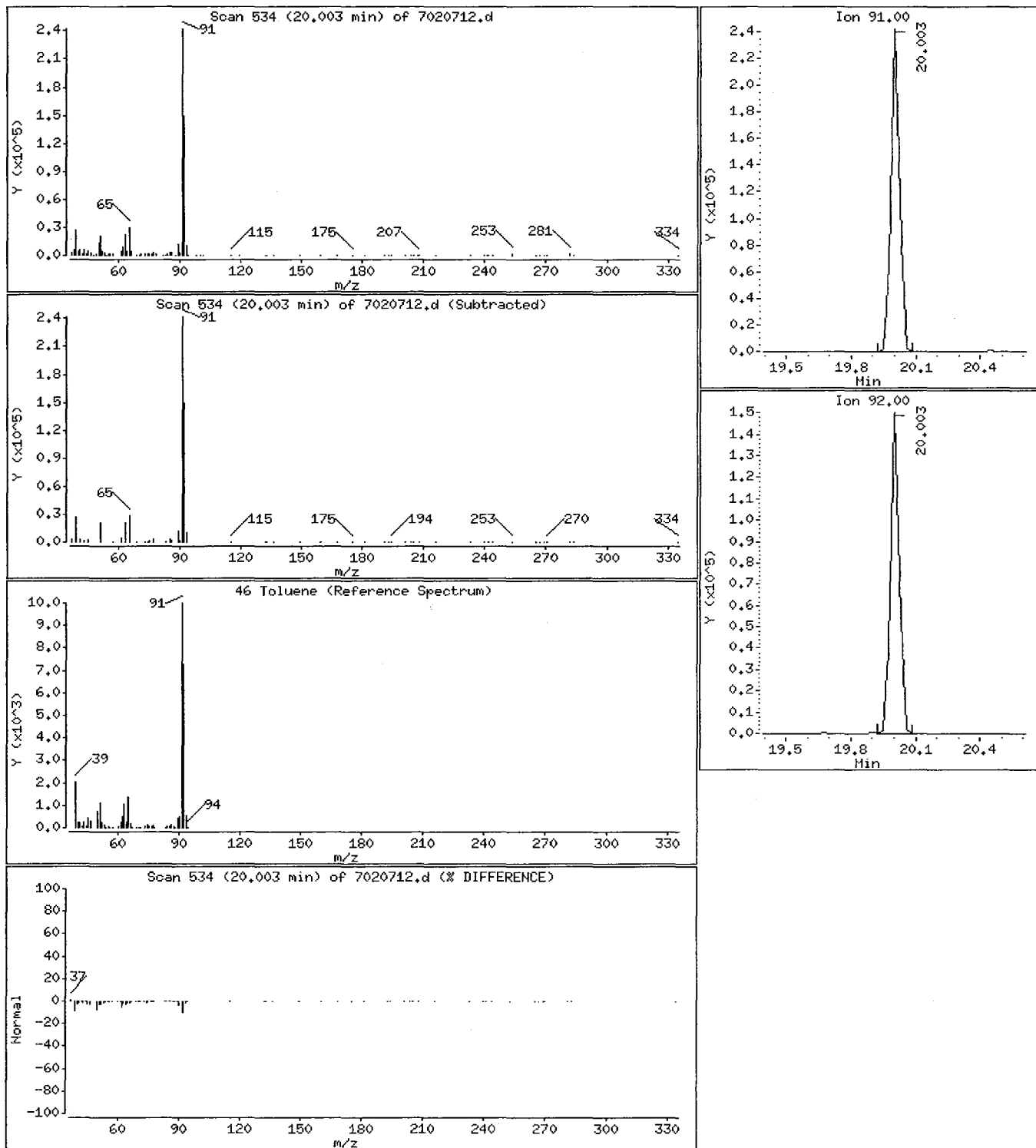
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 3.161 PPBV



0250

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

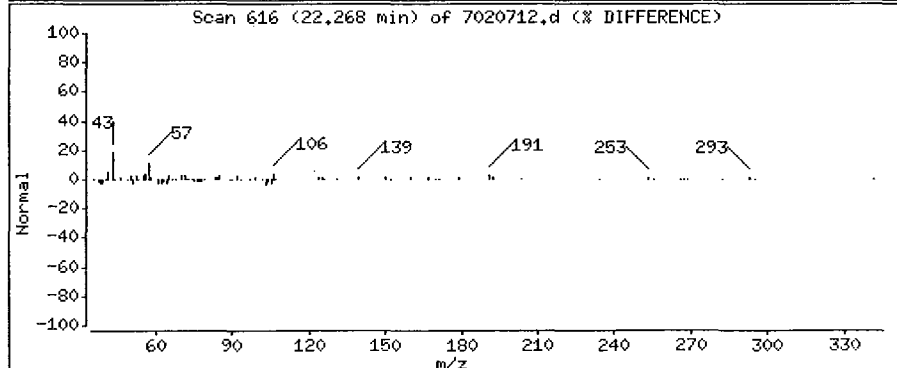
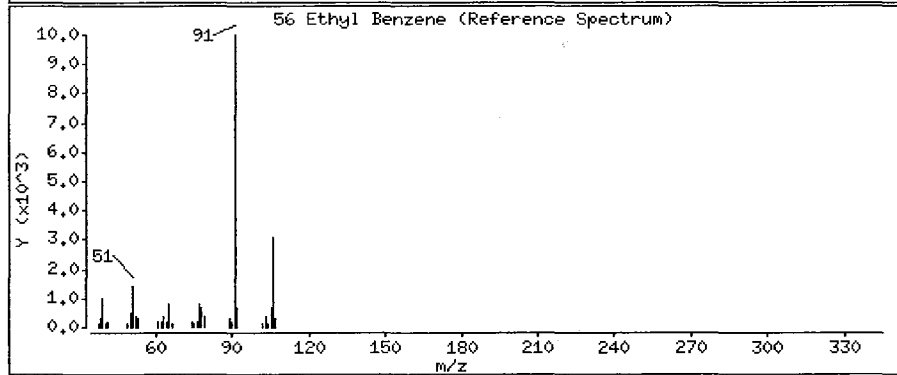
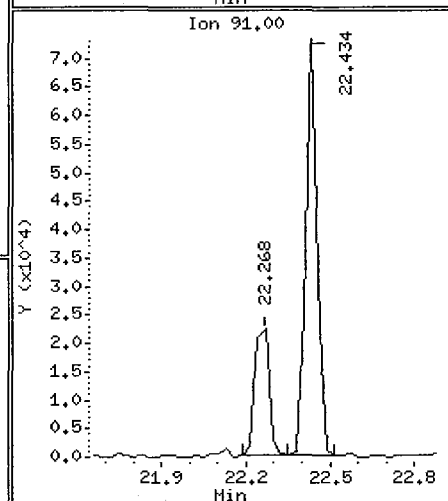
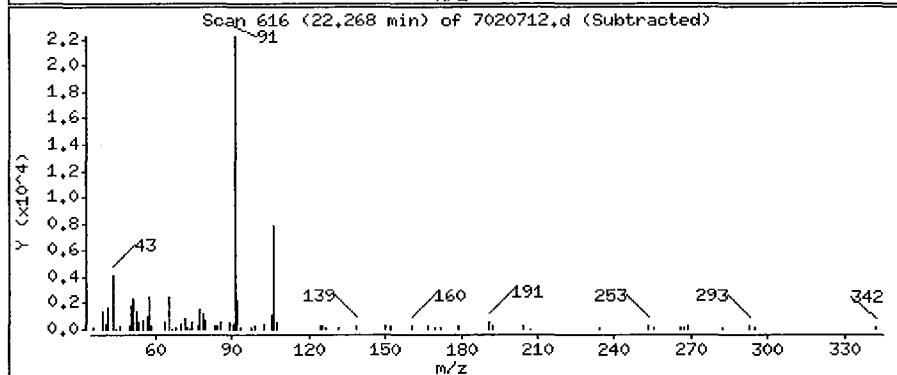
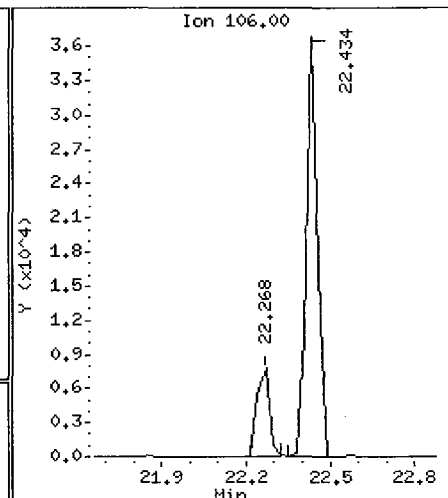
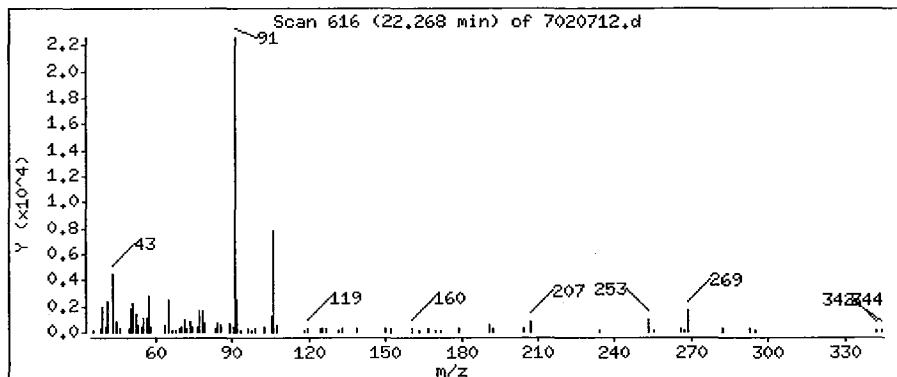
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.3354 PPBV



0251

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

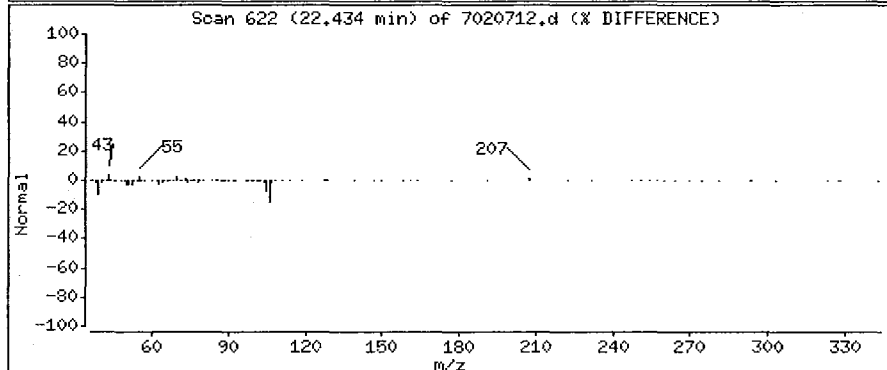
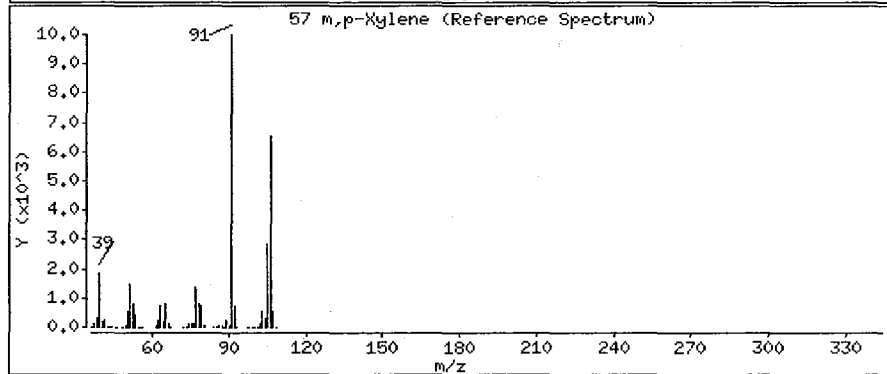
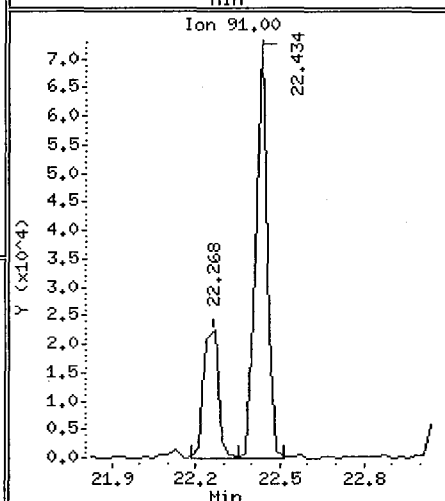
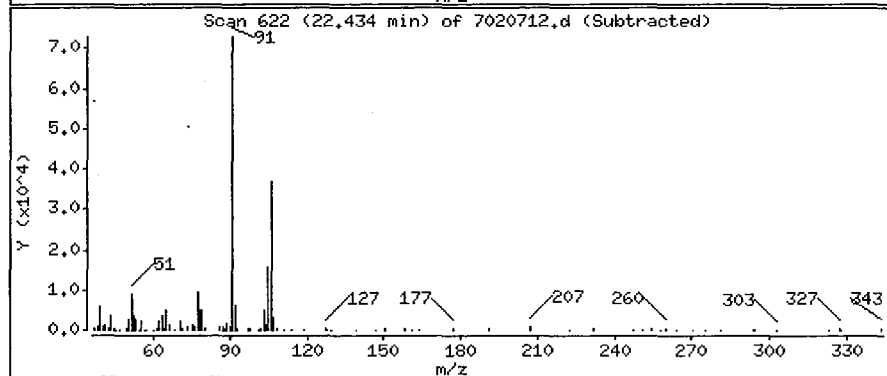
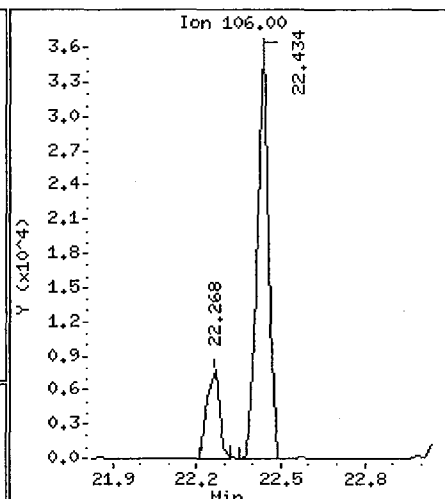
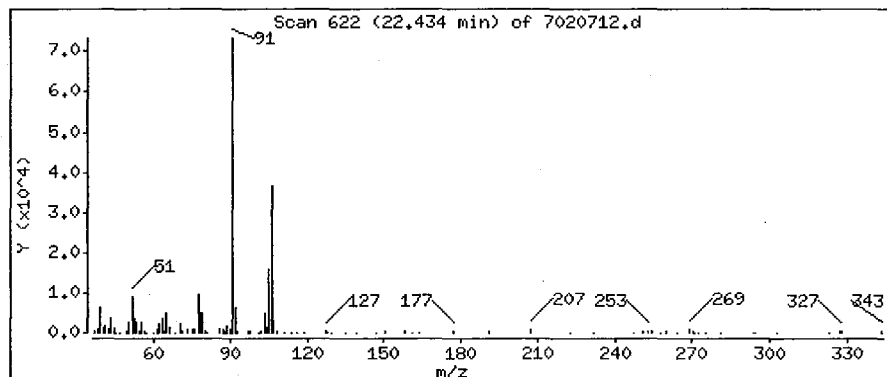
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.143 PPBV



0252

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

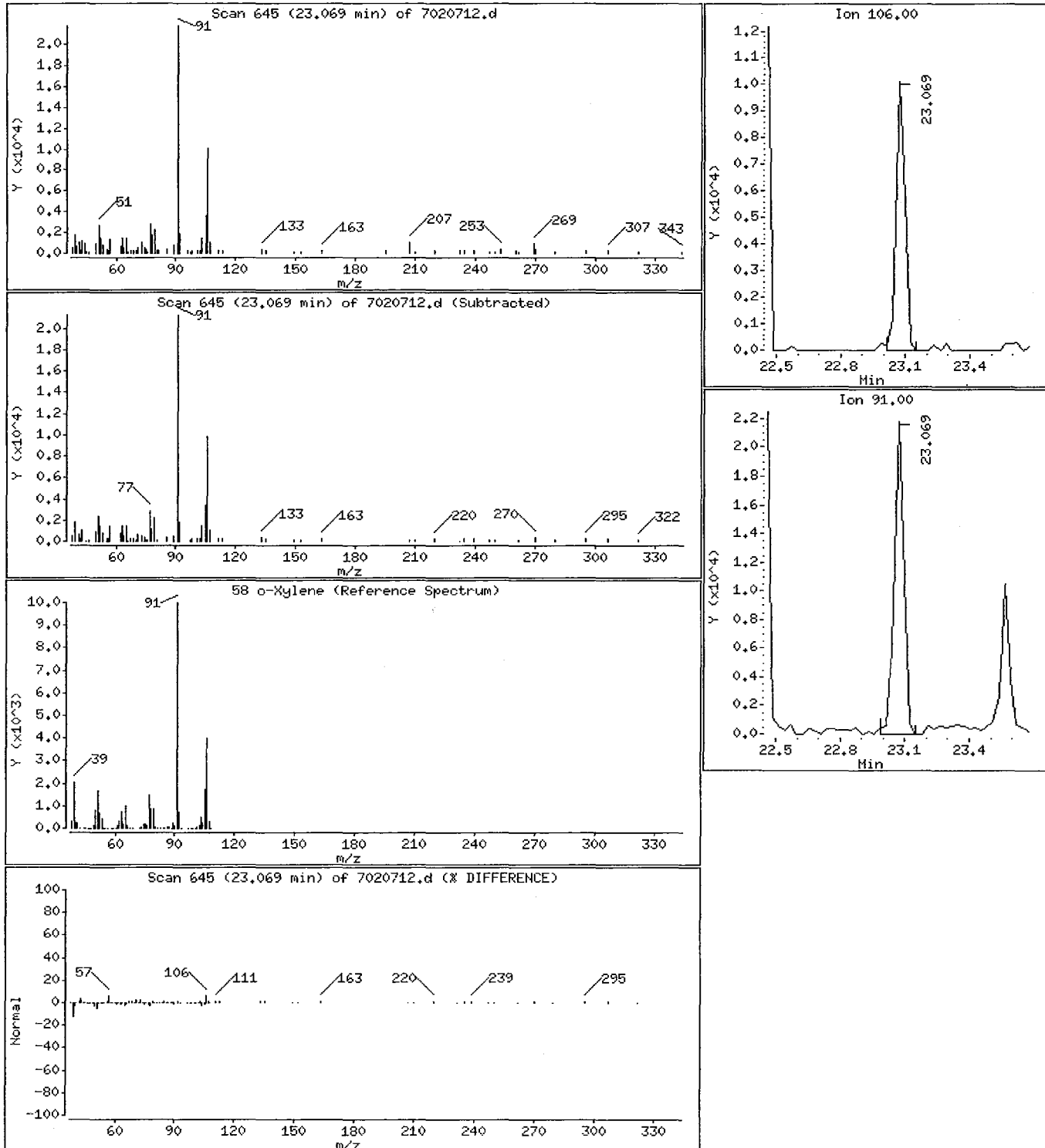
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.4113 PPBV



0253

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

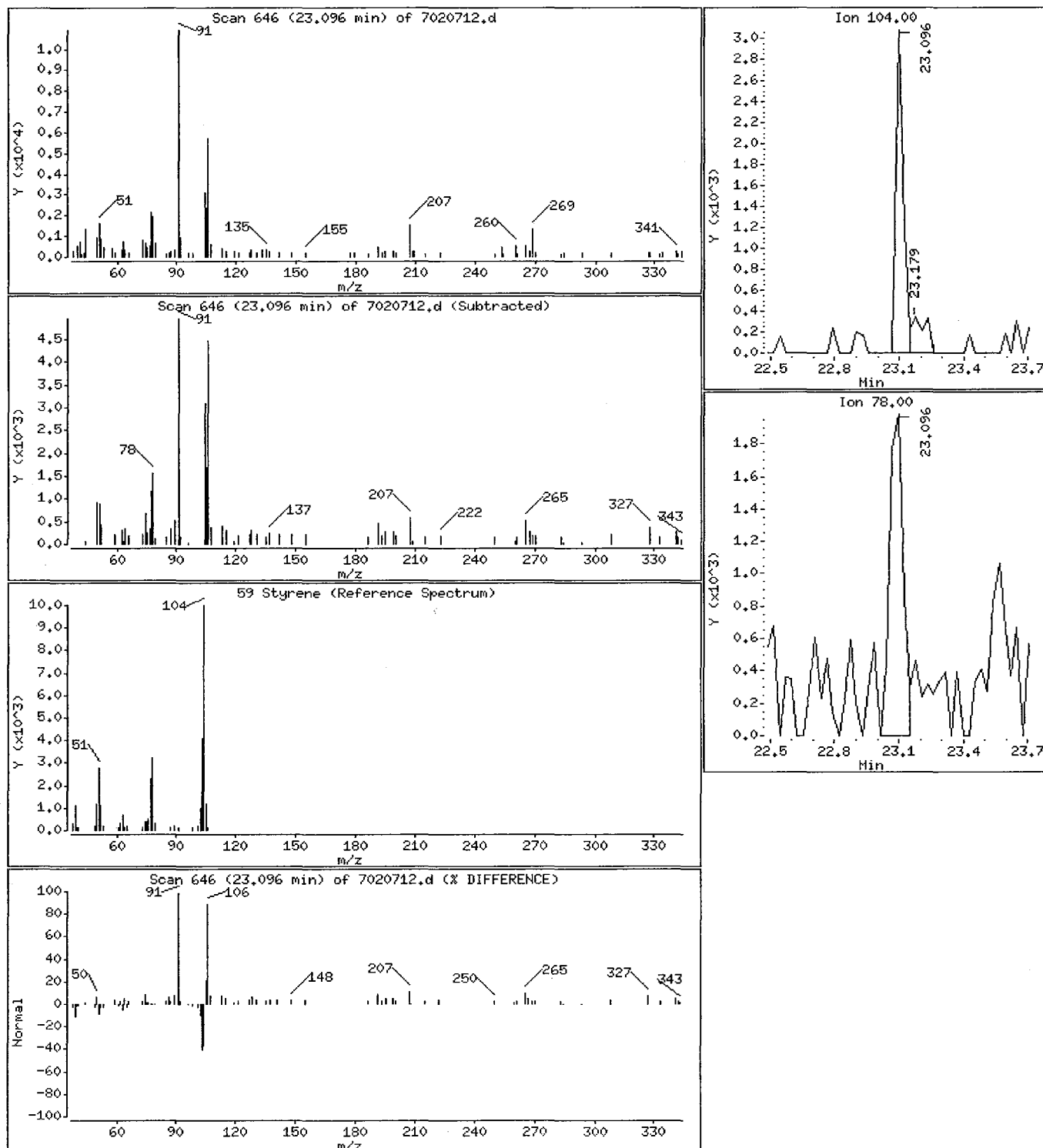
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.06803 PPBV



0254

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

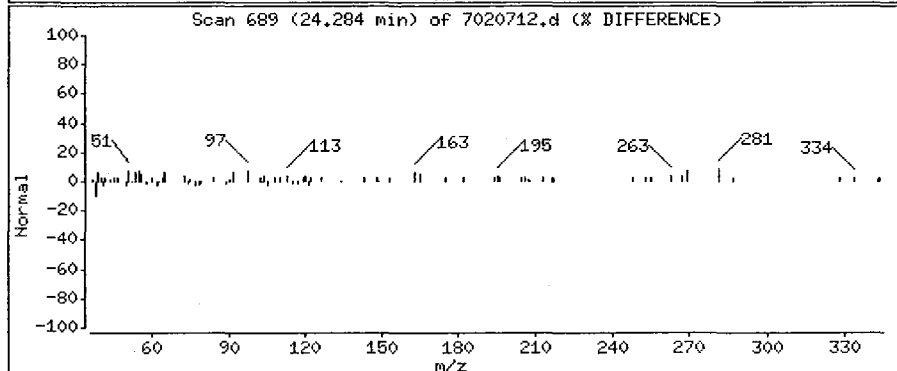
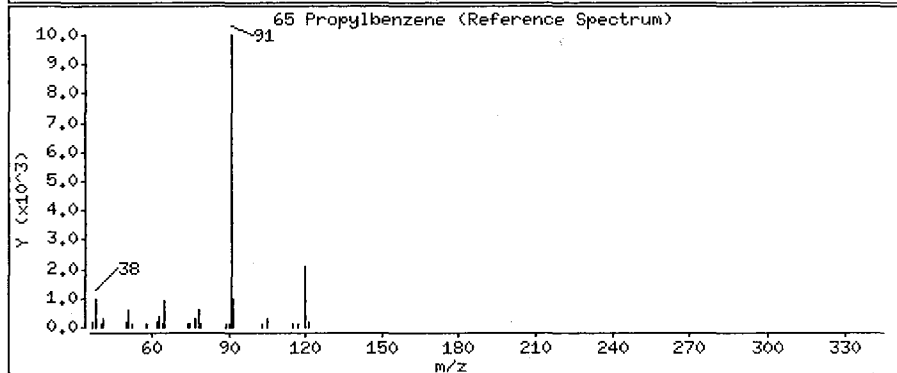
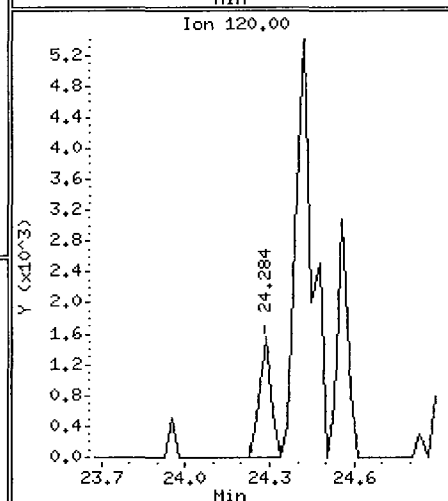
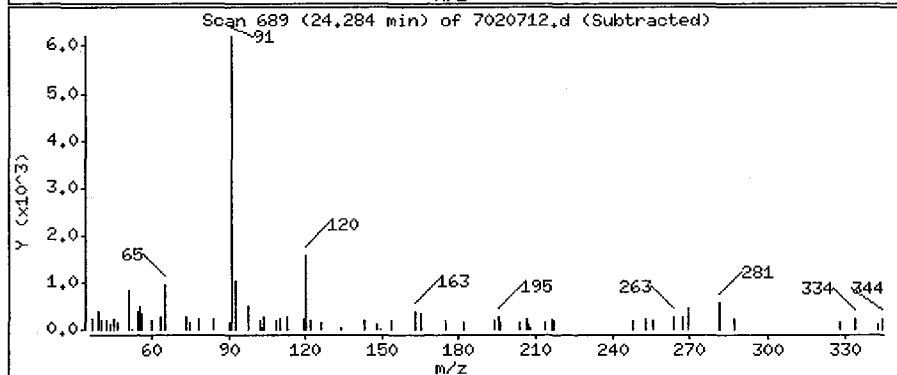
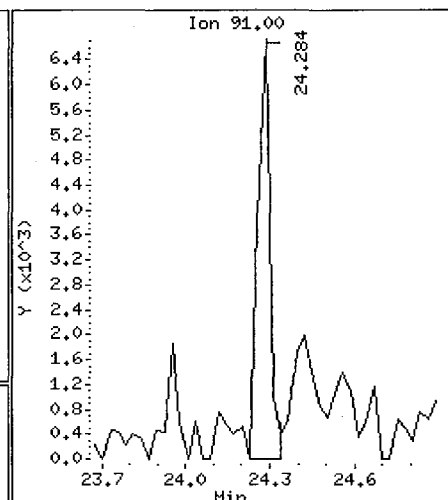
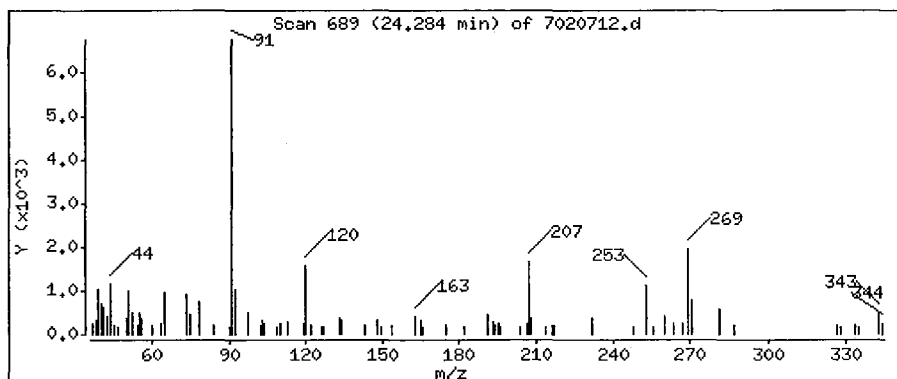
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.08438 PPBV



0255

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

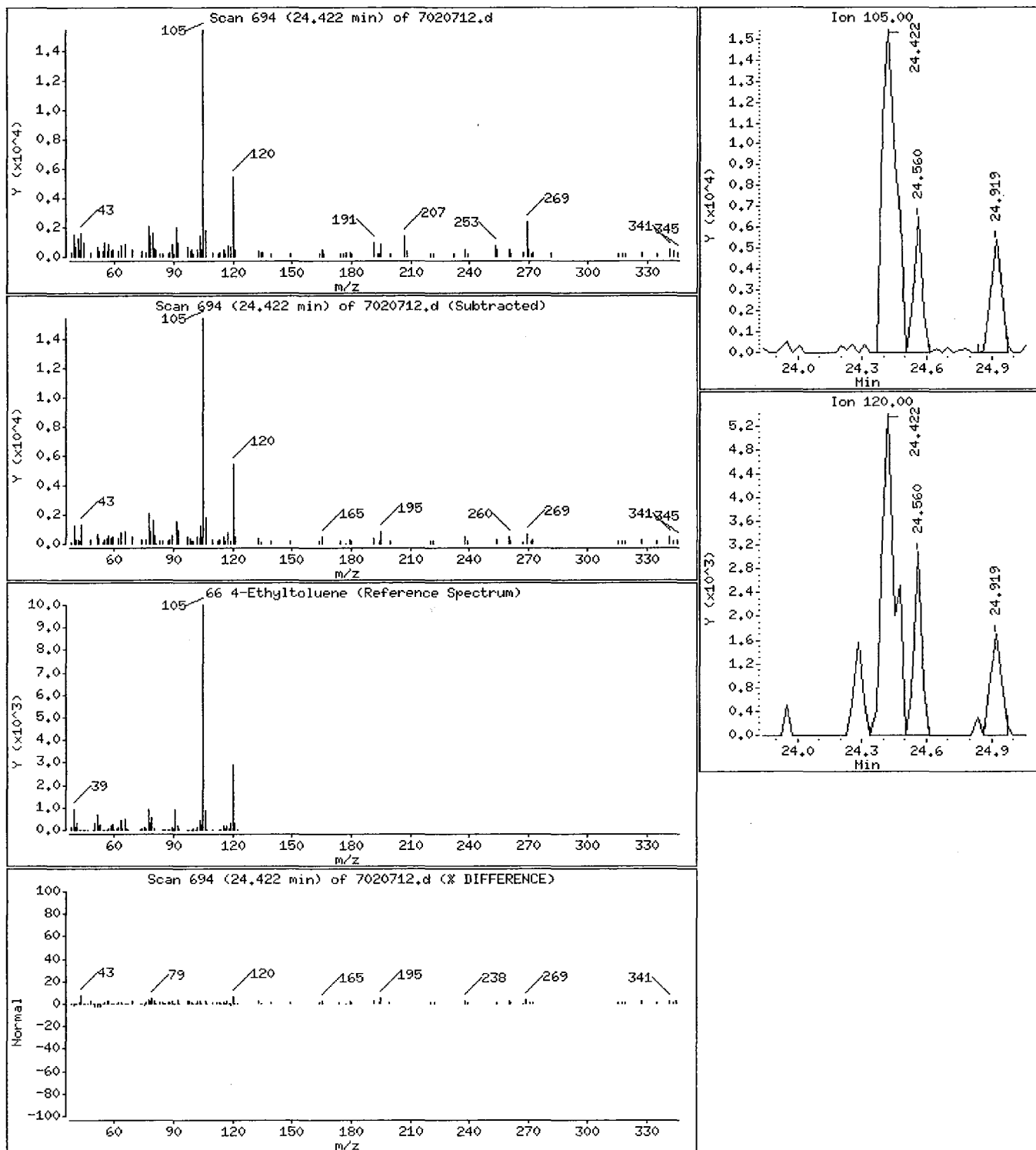
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.3714 PPBV



0256

Date: 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

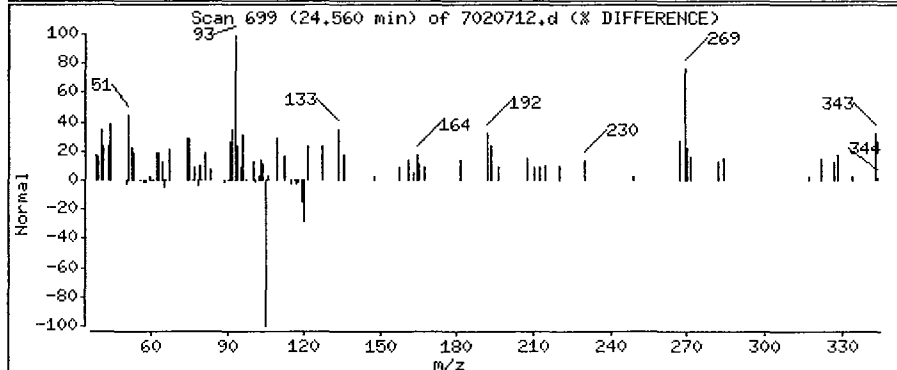
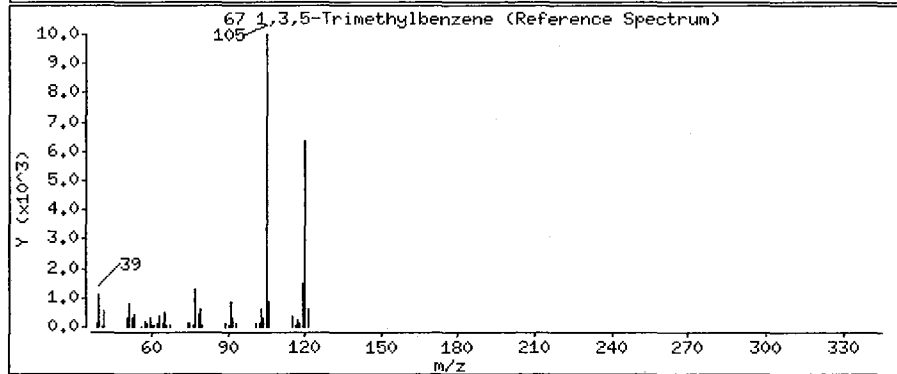
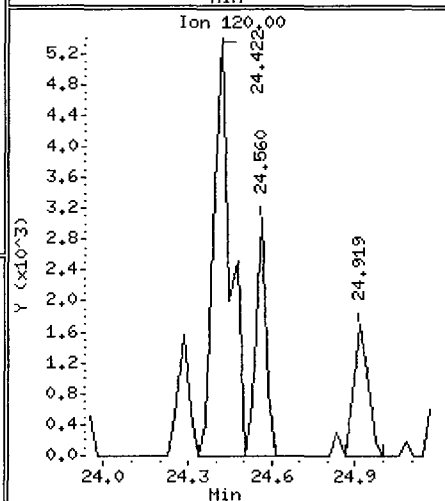
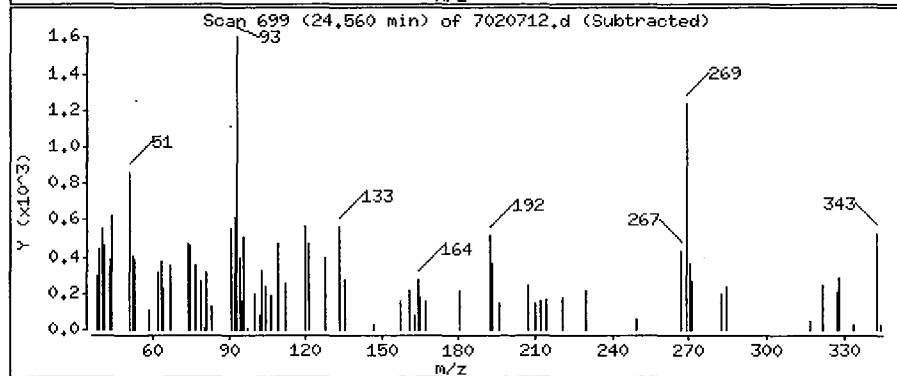
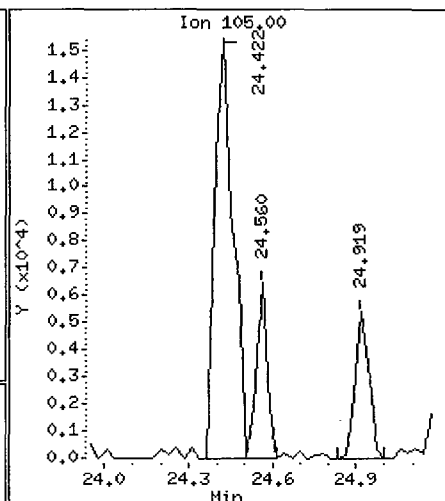
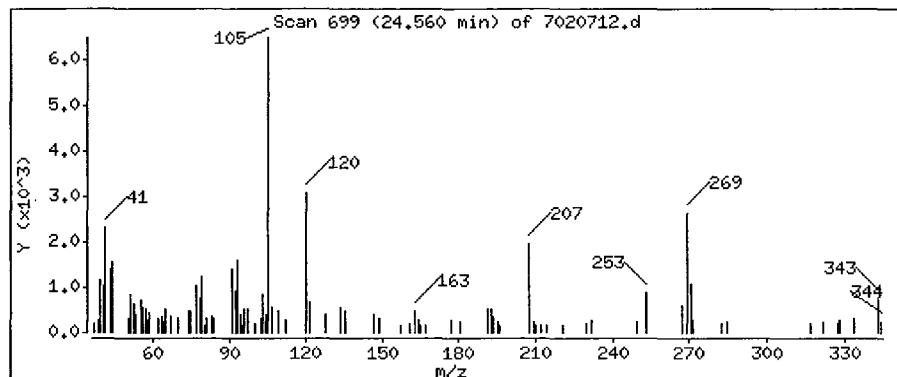
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1018 PPBV



0257

Date : 08-FEB-2005 08:18

Client ID:

Instrument: msd7.i

Sample Info: 500mL Can#94948

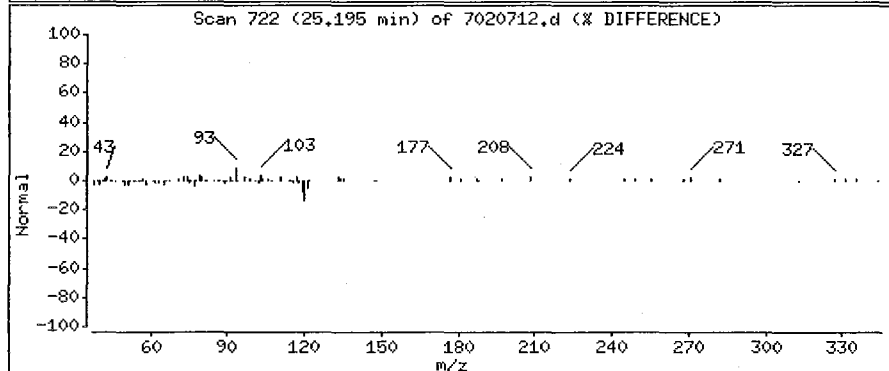
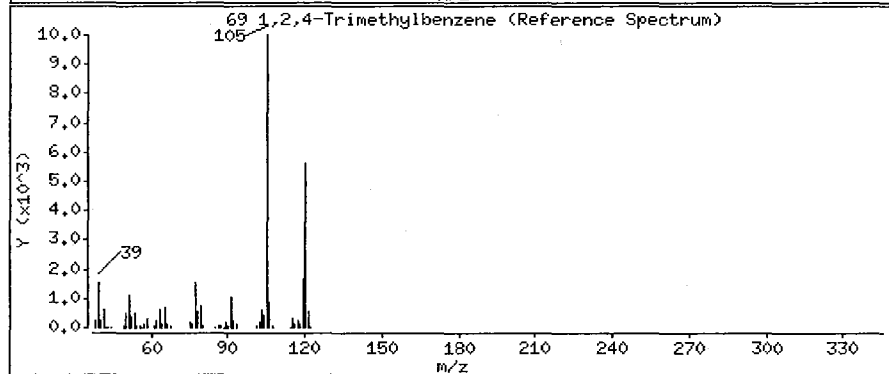
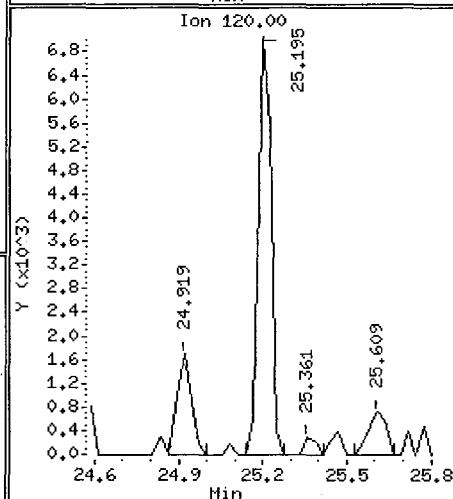
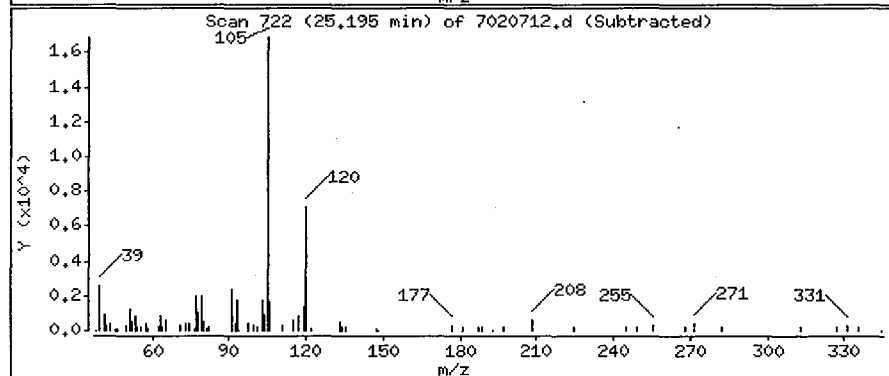
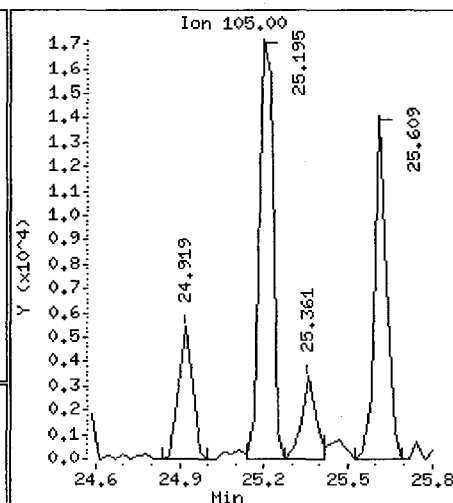
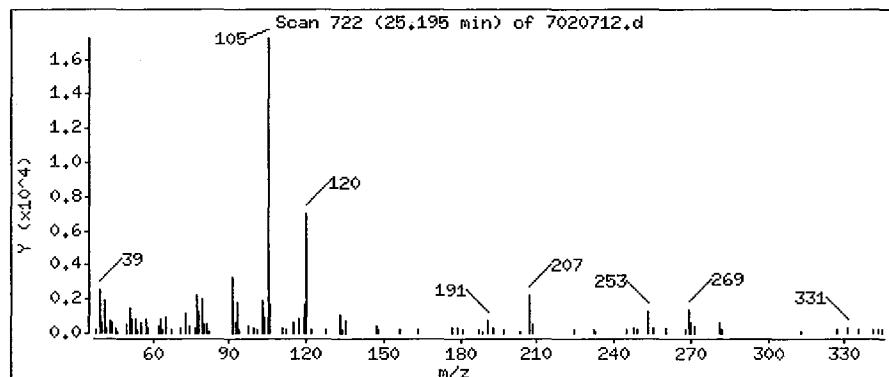
Operator: kb

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.3729 PPBV



0258

AIR TOXICS LTD.

SAMPLE NAME: #8, Roof of Fab 2

ID#: 0502032-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020917	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 06:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.63	0.84	3.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.44	0.35	0.91
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	0.27	0.45	0.72
Freon 11	0.17	0.44	0.96	2.5
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.11 J	1.1	0.70 J
Benzene	0.17	0.55	0.55	1.8
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	1.3	0.64	5.0
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.28	0.74	1.2
m,p-Xylene	0.17	0.83	0.74	3.6
o-Xylene	0.17	0.38	0.74	1.6
Styrene	0.17	0.068 J	0.73	0.29 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.11 J	0.84	0.53 J
1,2,4-Trimethylbenzene	0.17	0.42	0.84	2.1
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	14	1.2	50
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	2.0	2.0	4.8
Carbon Disulfide	0.86	0.070 J	2.7	0.22 J

AIR TOXICS LTD.

SAMPLE NAME: #8, Roof of Fab 2

ID#: 0502032-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020917	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 06:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	13	2.1	32
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.45 J	2.5	1.3 J
Hexane	0.86	0.40 J	3.0	1.4 J
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
Cyclohexane	0.86	0.12 J	2.9	0.42 J
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	0.38 J	3.5	1.5 J
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.42 J	4.2	2.1 J
Ethanol	0.86	2.7	1.6	5.0
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.22 J	3.5	0.91 J
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	Not Detected	4.2	Not Detected
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020917.d
Lab Smp Id: 0502032-08A
Inj Date : 09-FEB-2005 18:19
Operator : nk Inst ID: msd7.i
Smp Info : 500ml Can# 9941
Misc Info : 6.5"Hg-5psi, Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t14lJ27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #:	74-97-5		
16.331	16.331	(1.000)	130	443936	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	338548			26.96- 126.96	76.26	
16.331	16.331	(1.000)	49	799280			126.50- 226.50	180.04	

* 38 1,4-Difluorobenzene						CAS #:	540-36-3		
17.794	17.794	(1.000)	114	2035862	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	350433			0.00- 67.64	17.21	

* 54 Chlorobenzene-d5						CAS #:	3114-55-4		
22.130	22.130	(1.000)	117	1406368	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	847223			9.26- 109.26	60.24	

\$ 34 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
17.214	17.214	(1.054)	65	960160	10.5012	10.501	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	435038			0.17- 100.17	45.31	

\$ 45 Toluene-d8						CAS #:	2037-26-5		
19.893	19.893	(1.118)	98	1654161	9.52373	9.524	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	201898			0.00- 62.11	12.21	

0261

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1179475			22.24- 122.24	71.30	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	822866	11.3262	11.326	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1194615			97.68- 197.68	145.18	
23.953	23.953	(1.082)	176	759704			43.78- 143.78	92.32	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	132819	0.36910	0.6312	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	47490			0.00- 81.67	35.76	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	26629	0.25669	0.4389	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	11399			0.00- 84.65	42.81	

9 Chloroethane						CAS #: 75-00-3			
10.200	10.200	(0.625)	64	8619	0.15929	0.2724	80.00- 120.00	100.00	
10.200	10.200	(0.625)	66	3318			0.00- 83.15	38.50	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	80129	0.25608	0.4379	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	51008			13.78- 113.78	63.66	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	68693	1.56411	2.675	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	16887			0.00- 76.71	24.58	
12.050	12.050	(0.738)	46	27908			0.00- 90.17	40.63	

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	279458	1.19464	2.043	80.00- 120.00	100.00	
12.851	12.824	(0.787)	58	74618			0.00- 78.78	26.70	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	1657902	7.49822	12.822	80.00- 120.00	100.00	
13.238	13.238	(0.811)	43	335497			0.00- 69.75	20.24	
13.238	13.238	(0.811)	59	60669			0.00- 53.72	3.66	

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	11849	0.04078	0.06974	80.00- 120.00	100.00(a)	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	782780	8.45578	14.459	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	1208959			111.57- 211.57	154.44	
13.735	13.735	(0.841)	51	348306			0.00- 93.42	44.50	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
---	-----	-----	---	-----	-----	-----	-----	-----	-----
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	41080	0.23419	0.4005	80.00-	120.00	100.00(a)
14.563	14.563	(0.892)	43	37595			15.23-	115.23	91.52
14.563	14.563	(0.892)	86	5159			0.00-	65.23	12.56

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	12807	0.26420	0.4518	80.00-	120.00	100.00(a)
15.972	15.972	(0.978)	43	81767			1046.10-	1146.10	638.46
15.972	15.972	(0.978)	57	5781			0.00-	89.21	45.14

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	6969	0.07185	0.1229	80.00-	120.00	100.00(a)
16.662	16.662	(1.020)	56	22720			93.37-	193.37	326.02
16.662	16.662	(1.020)	41	18117			30.80-	130.80	259.97

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	10414	0.06533	0.1117	80.00-	120.00	100.00(a)
16.883	16.883	(1.034)	117	11869			62.01-	162.01	113.97

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	94919	0.32126	0.5493	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	19491			0.00-	72.07	20.53

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	22415	0.12993	0.2222	80.00-	120.00	100.00(a)
17.435	17.435	(0.980)	57	12224			1.42-	101.42	54.53
17.435	17.435	(0.980)	100	3923			0.00-	66.93	17.50

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	42047	0.22032	0.3767	80.00-	120.00	100.00(a)
19.727	19.727	(1.109)	58	15840			0.00-	87.49	37.67
19.727	19.727	(1.109)	85	5860			0.00-	66.91	13.94

46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	262911	0.77670	1.328	80.00-	120.00	100.00
20.004	20.004	(1.124)	92	160965			11.18-	111.18	61.22

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	18927	0.16391	0.2803	80.00-	120.00	100.00
22.268	22.268	(1.006)	91	60127			294.68-	394.68	317.68

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	68389	0.48426	0.8281	80.00-	120.00	100.00
22.434	22.434	(1.014)	91	169669			168.06-	268.06	248.09

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	25516	0.22186	0.3794	80.00-	120.00	100.00

0263

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
58 o-Xylene (continued)								
23.069	23.069	(1.042)	91	55072			186.48- 286.48	215.83

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	7053	0.03962	0.06774	80.00- 120.00	100.00(a)
23.096	23.096	(1.044)	78	8205			6.37- 106.37	116.33

66 4-Ethyltoluene						CAS #: 622-96-8		
24.422	24.450	(1.104)	105	75151	0.24524	0.4194	80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	17429			0.00- 73.94	23.19

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	17275	0.06354	0.1086	80.00- 120.00	100.00(a)
24.560	24.560	(1.110)	120	11093			0.00- 88.64	64.21

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	63960	0.24592	0.4205	80.00- 120.00	100.00
25.223	25.195	(1.140)	120	24278			0.00- 87.09	37.96

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0264

SCOEP A00031936

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020917.d
Lab Smp Id: 0502032-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi, Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	443936	-6.46
38 1,4-Difluorobenze	2234295	1340577	3128013	2035862	-8.88
54 Chlorobenzene-d5	1557243	934346	2180140	1406368	-9.69

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0265

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-08A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi, Clayton

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.501	105.01	70-130
\$ 45 Toluene-d8	10.000	9.524	95.24	70-130
\$ 63 Bromofluorobenzene	10.000	11.326	113.26	70-130

Date : 09-FEB-2005 18:19

Client ID:

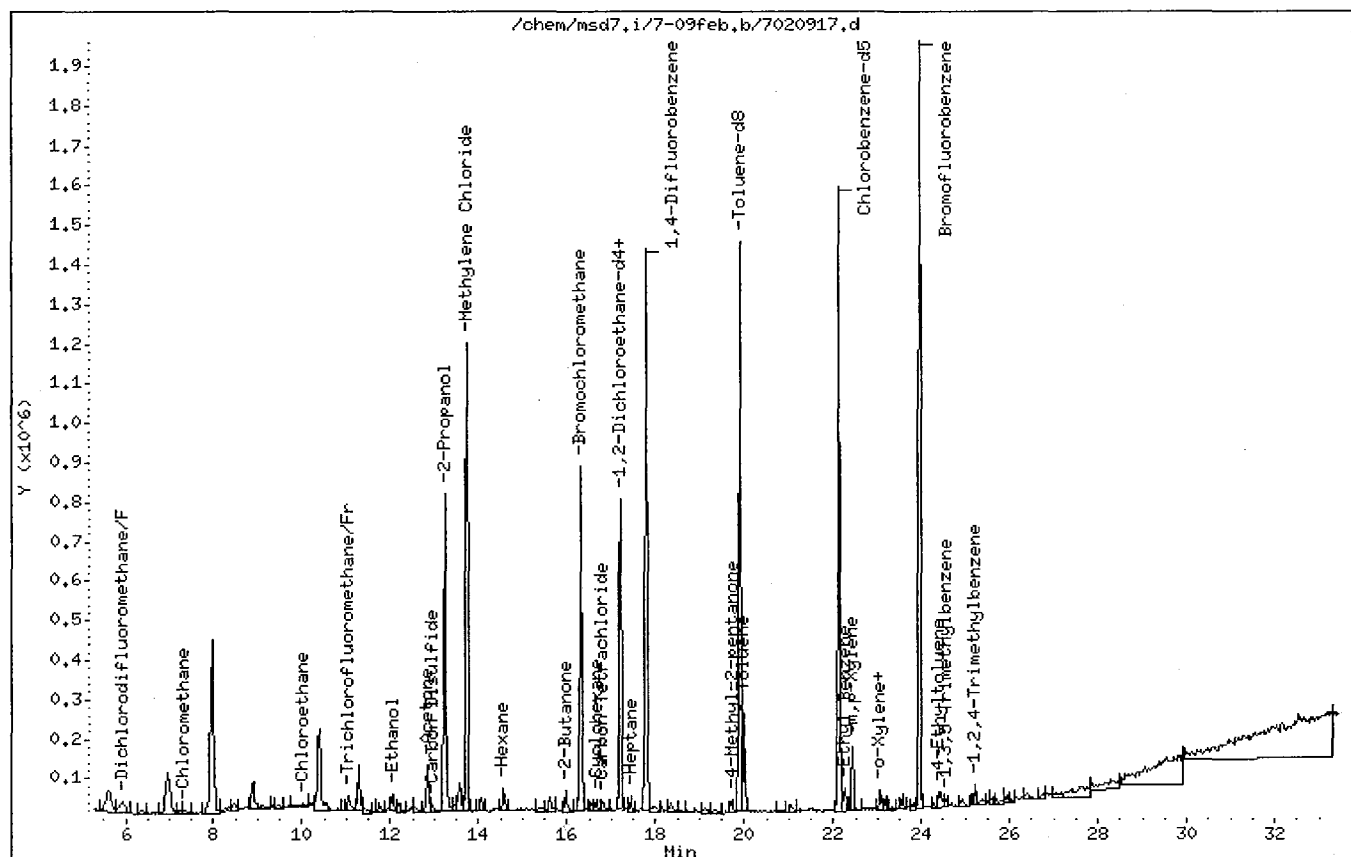
Instrument: msd7.i

Sample Info: 500ml Can# 9941

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0267

SCOEP00031939

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

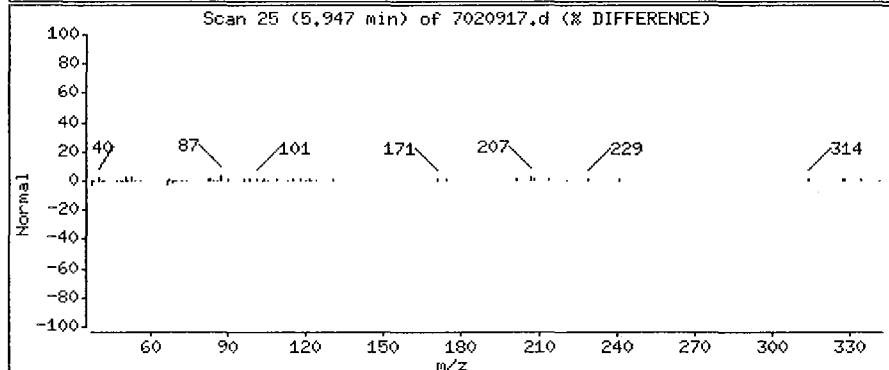
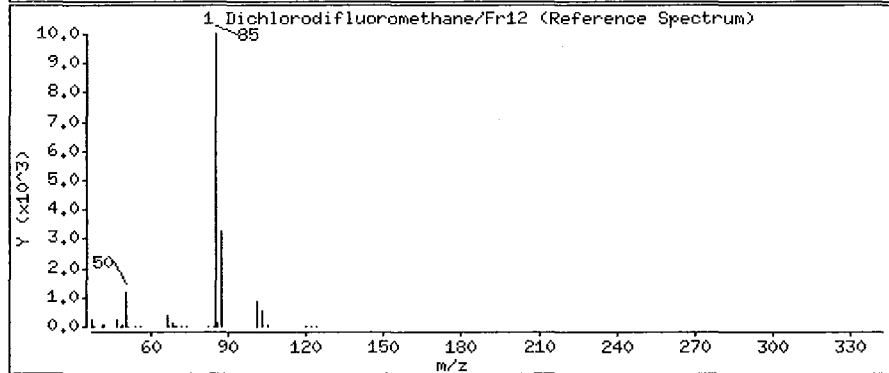
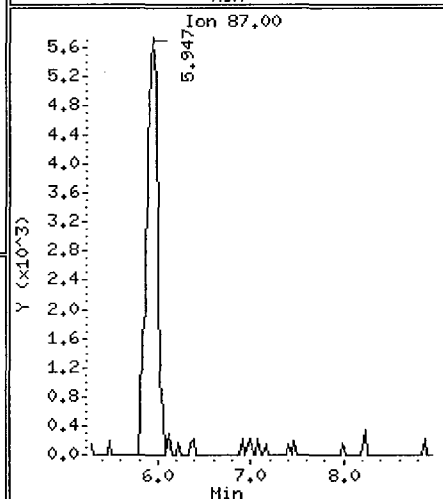
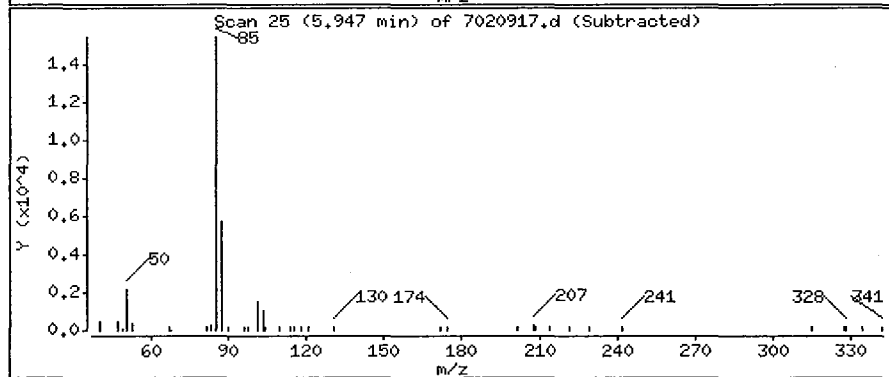
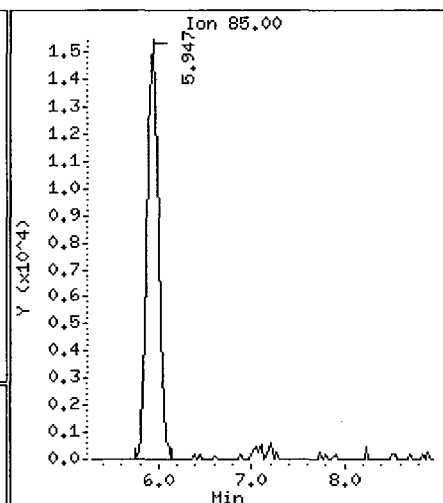
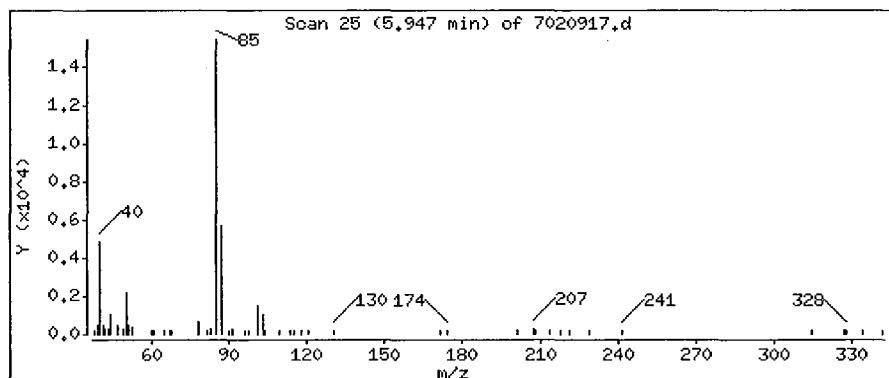
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.6312 PPBV



0268

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

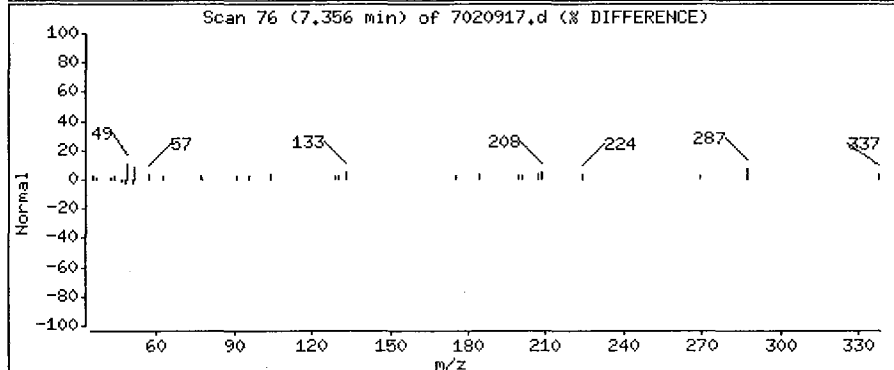
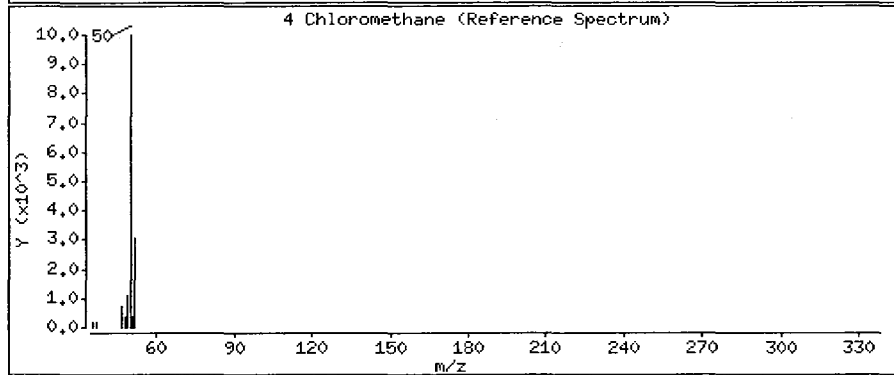
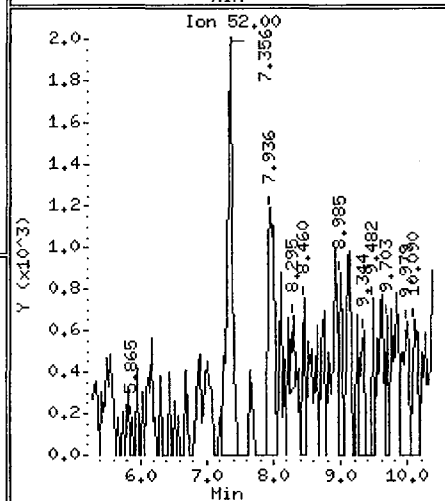
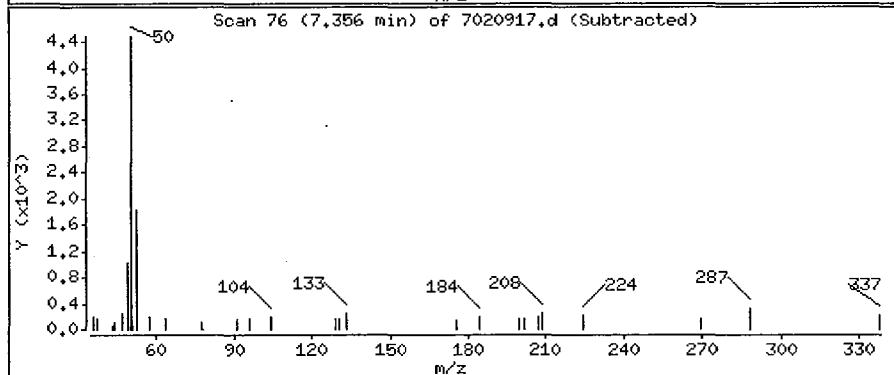
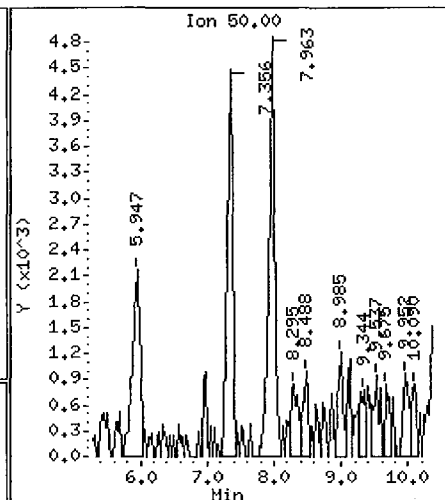
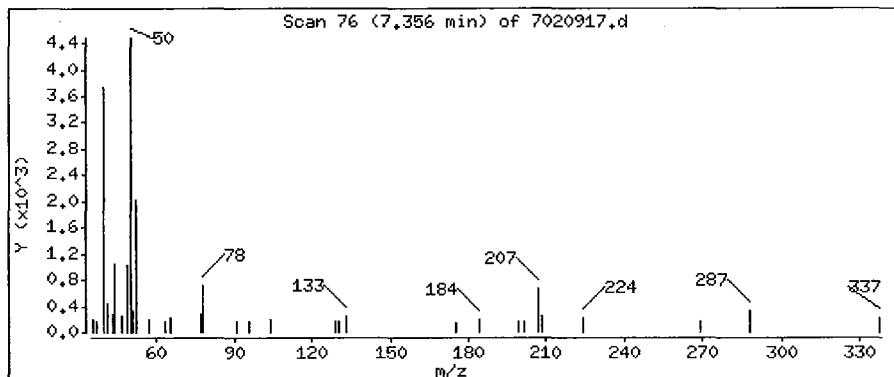
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4389 PPBV



0269

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

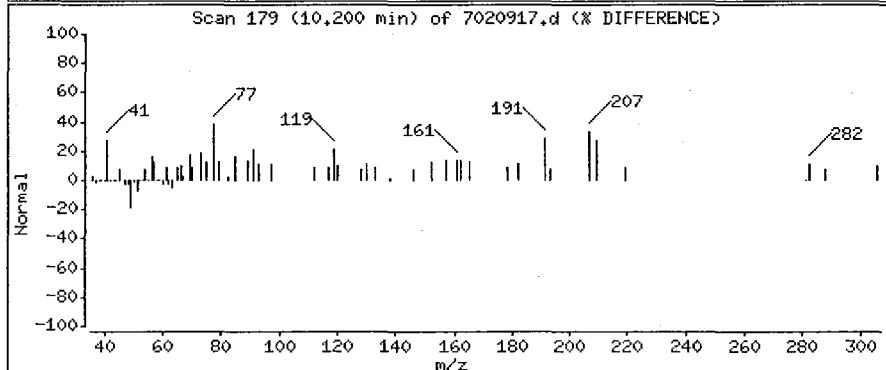
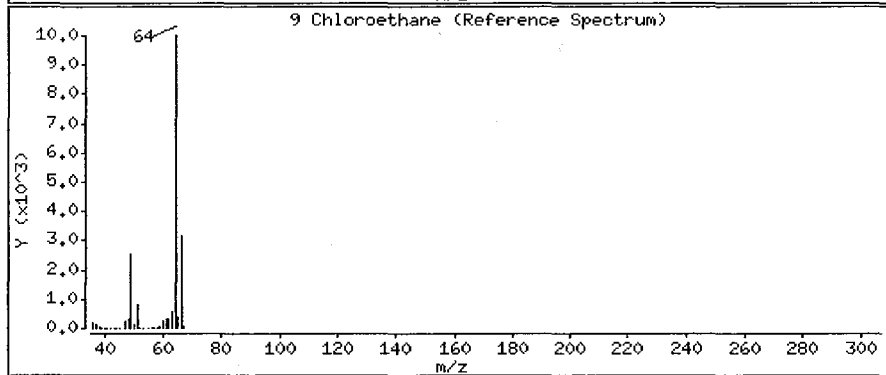
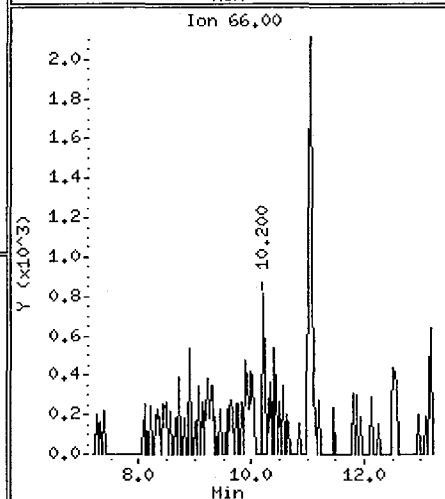
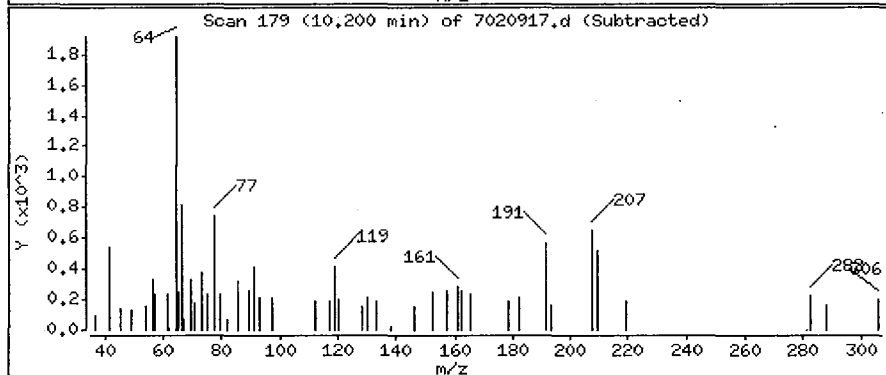
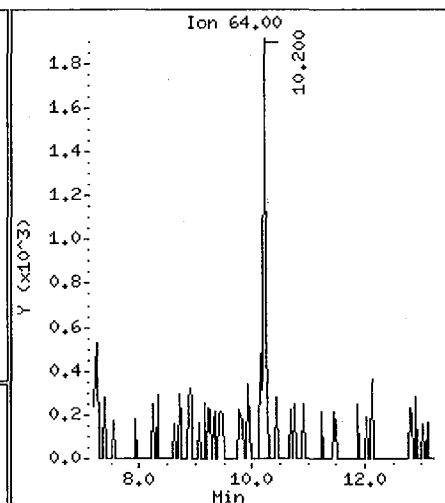
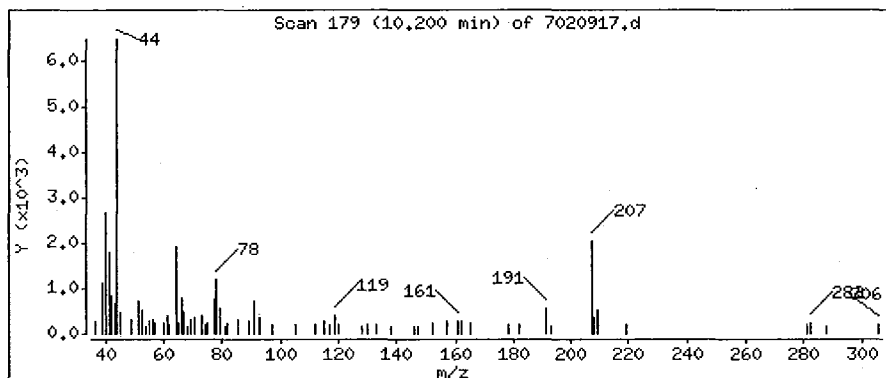
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

9 Chloroethane

Concentration: 0.2724 PPBV



0270

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

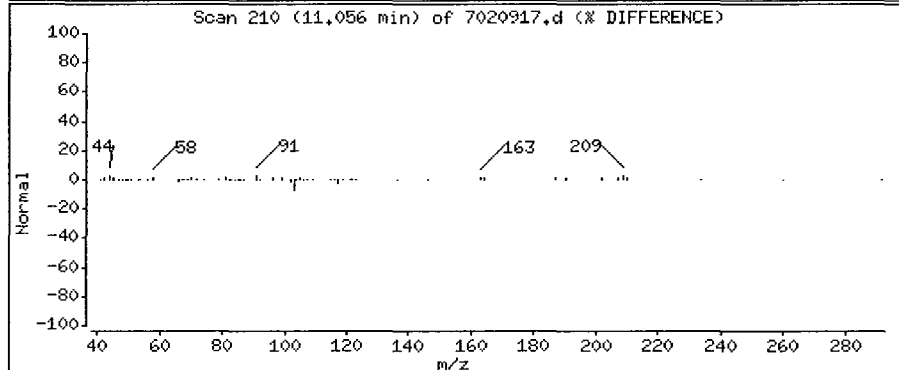
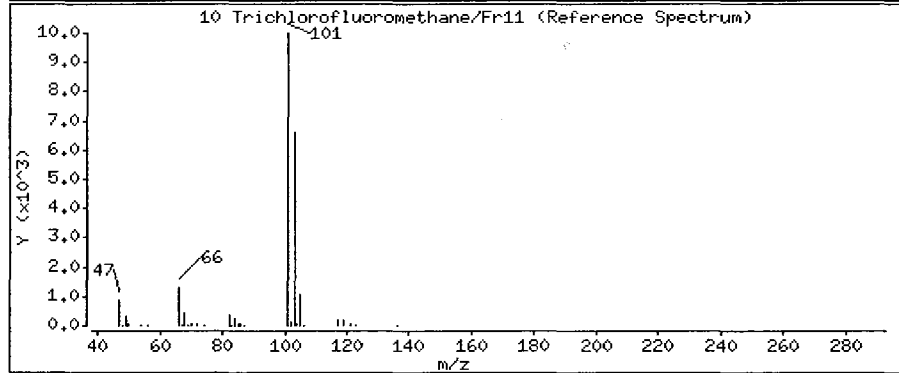
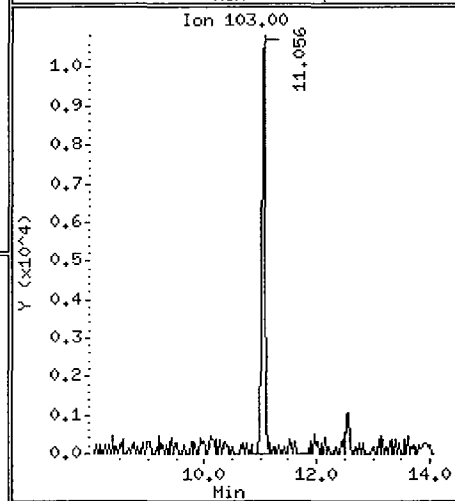
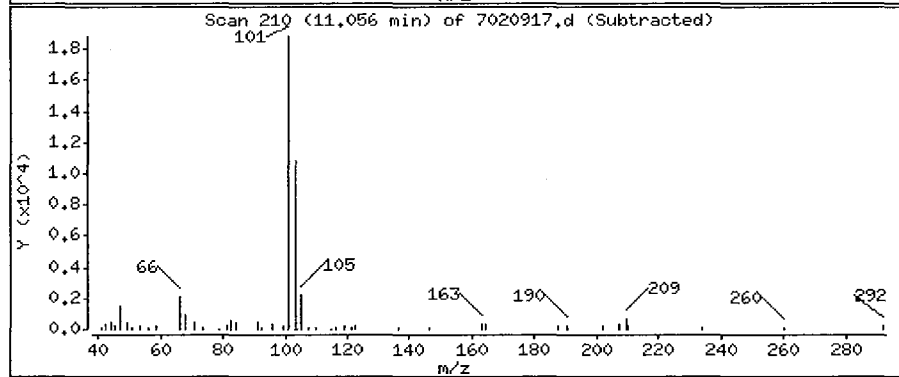
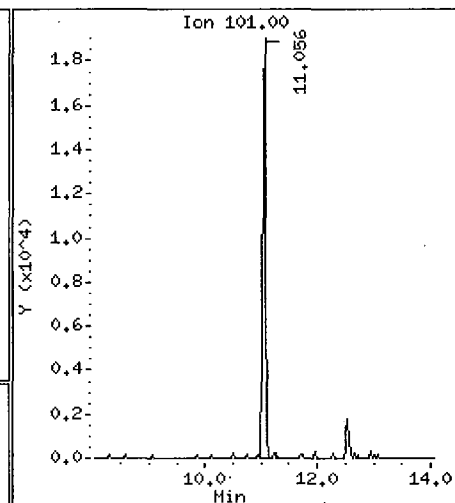
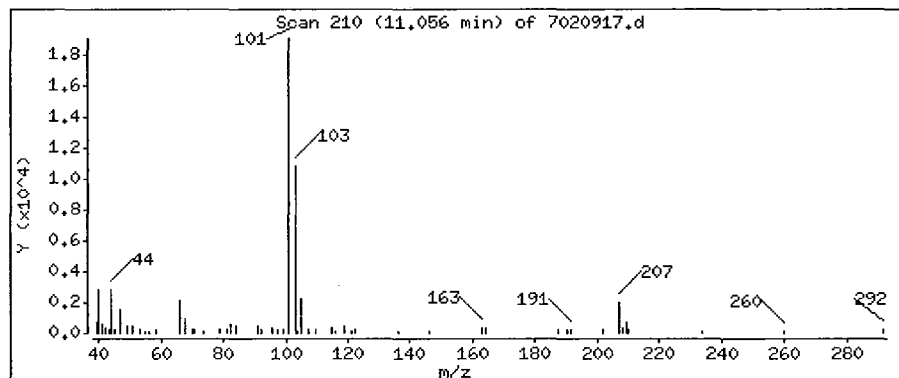
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.4379 PPBV



0271

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

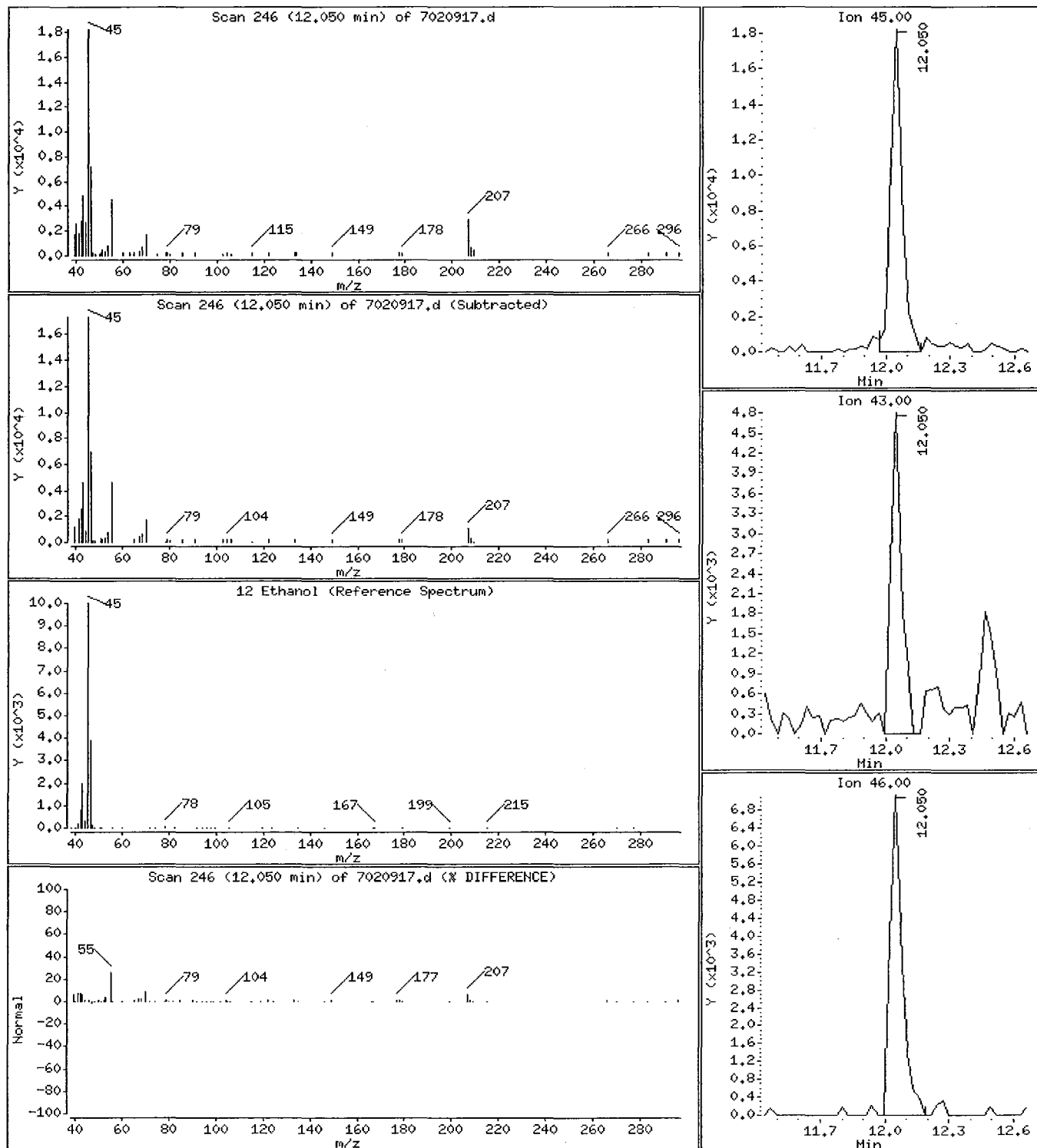
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

12 Ethanol

Concentration: 2.675 PPBV



0272

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

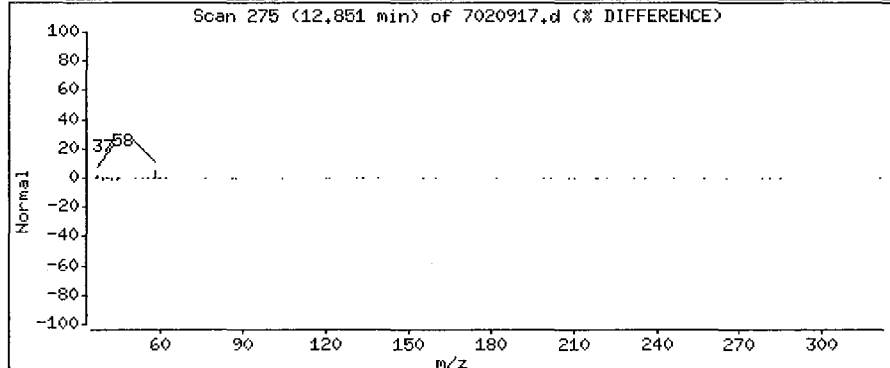
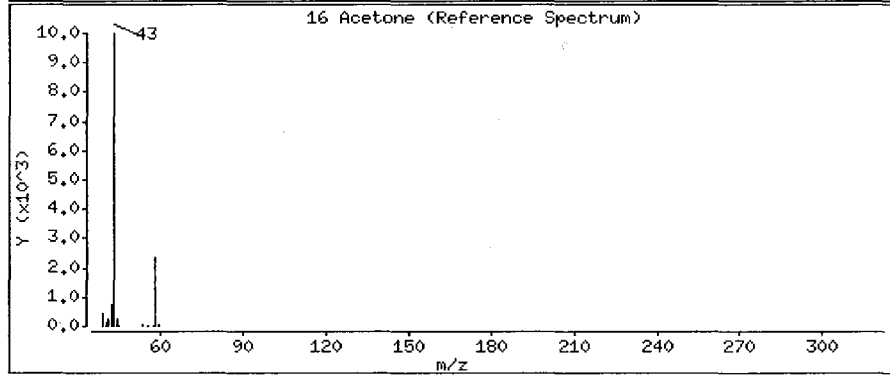
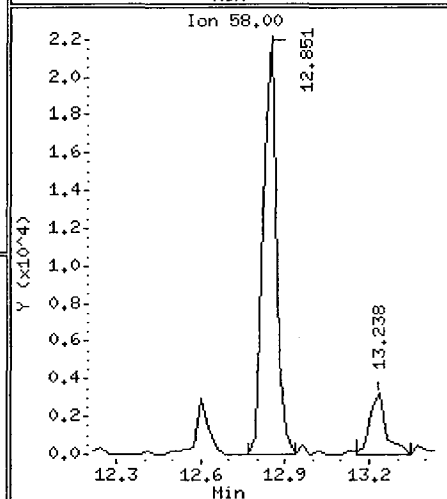
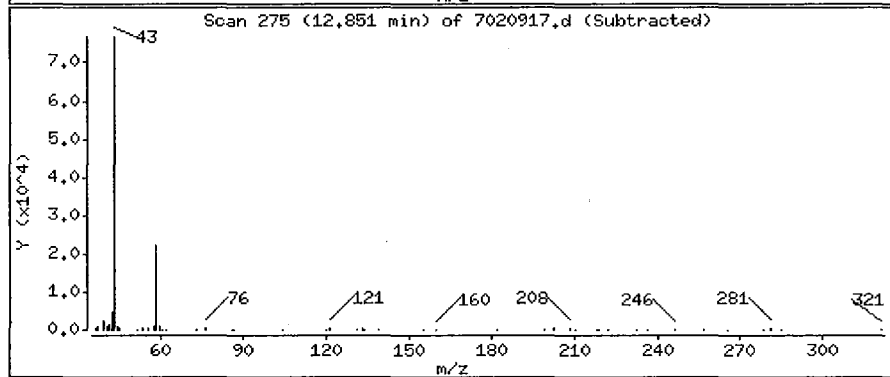
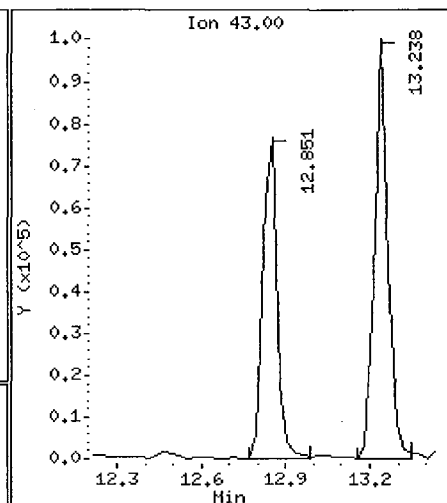
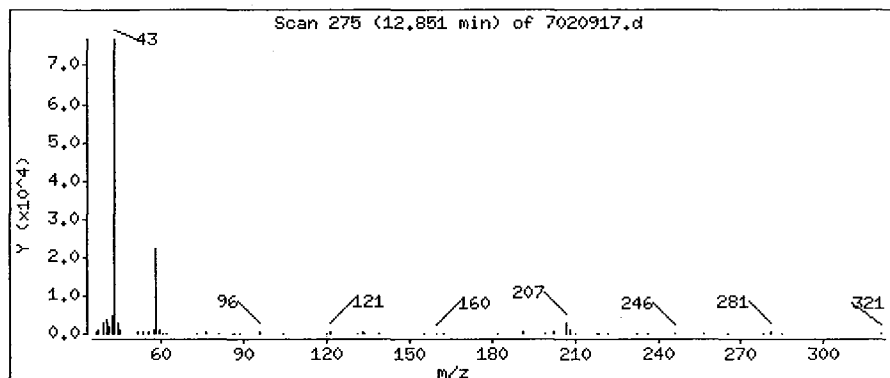
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 2.043 PPBV



0273

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

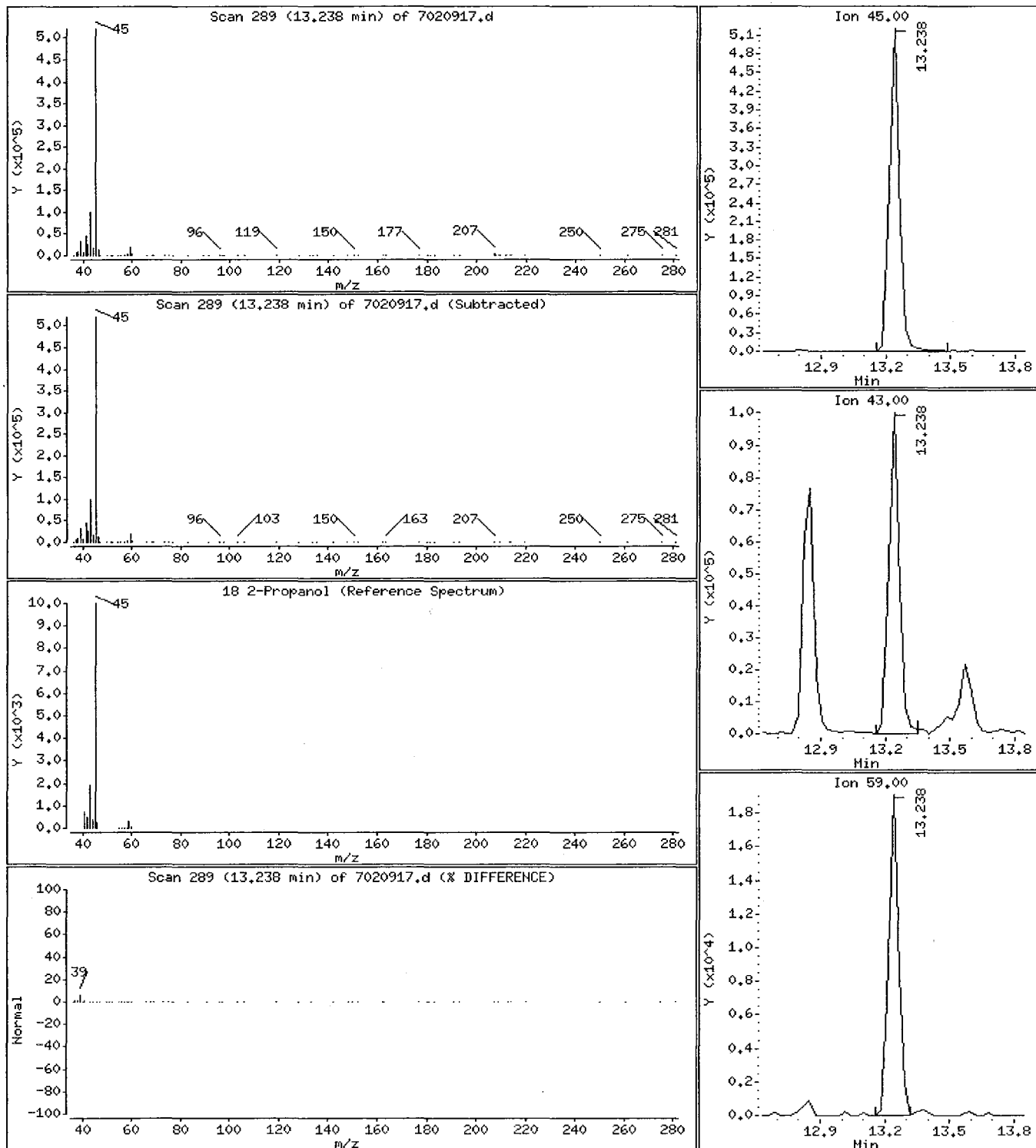
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 12,822 PPBV



0274

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

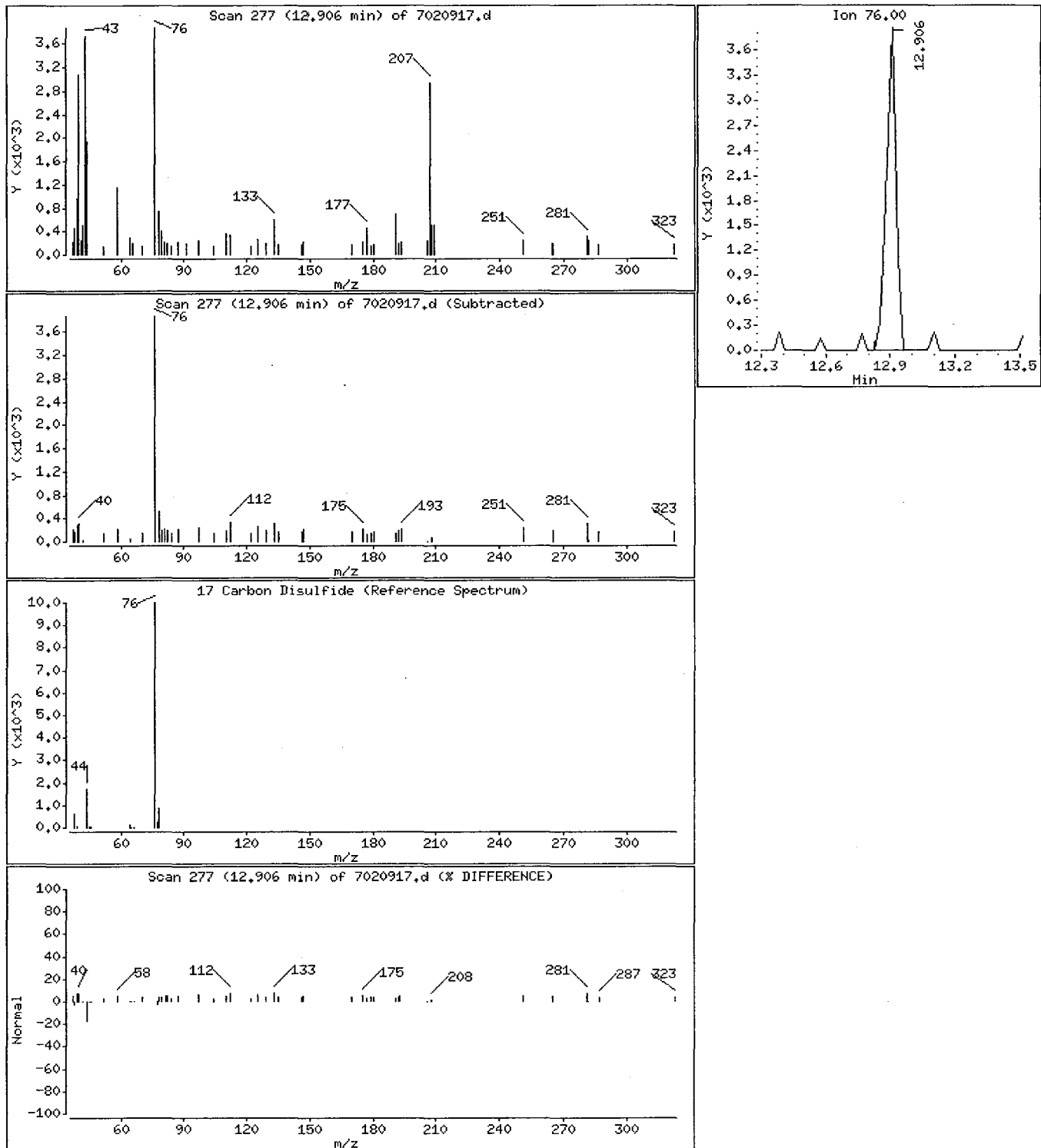
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.06974 PPBV



0275

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

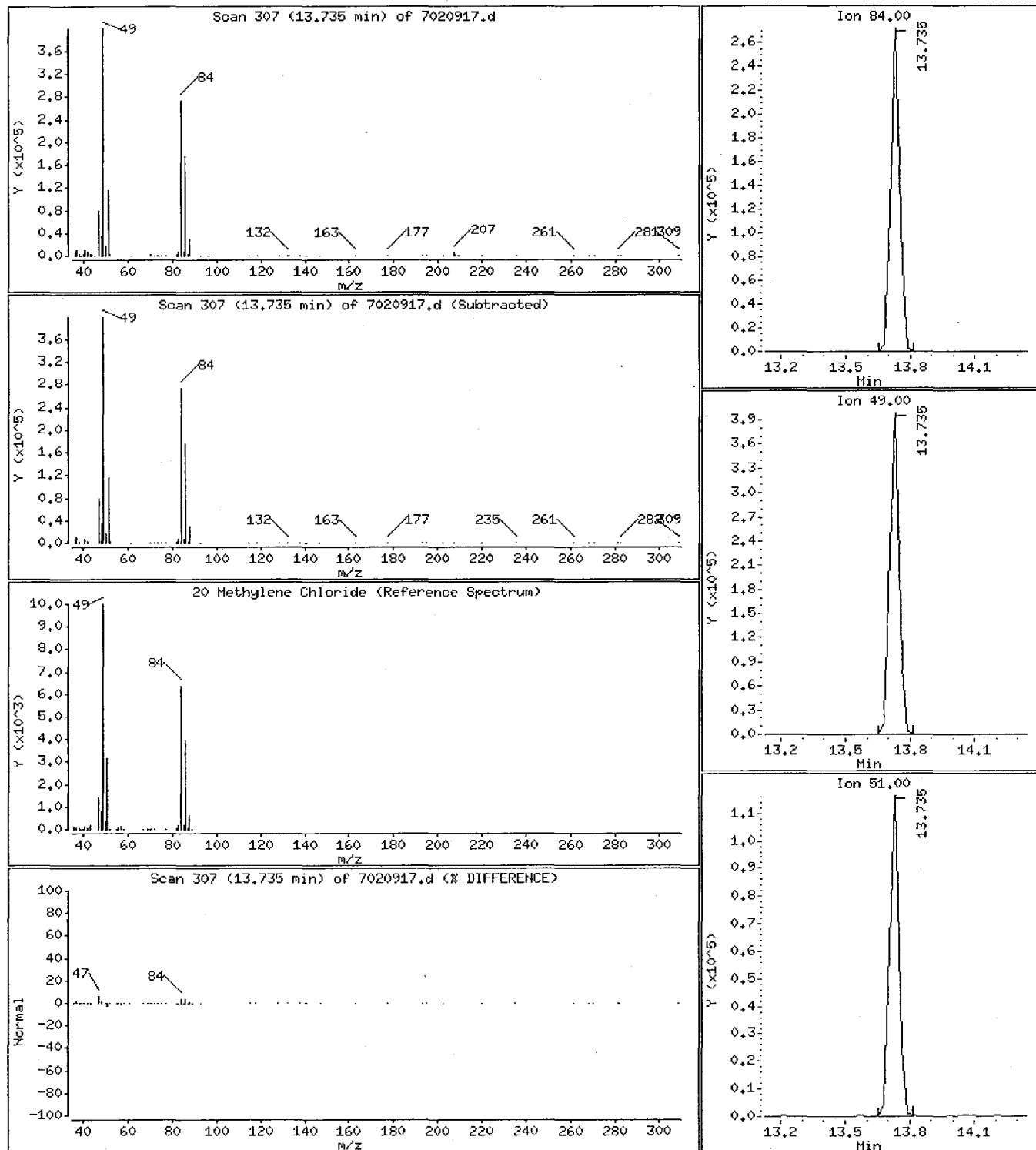
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 14,459 PPBV



0276

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

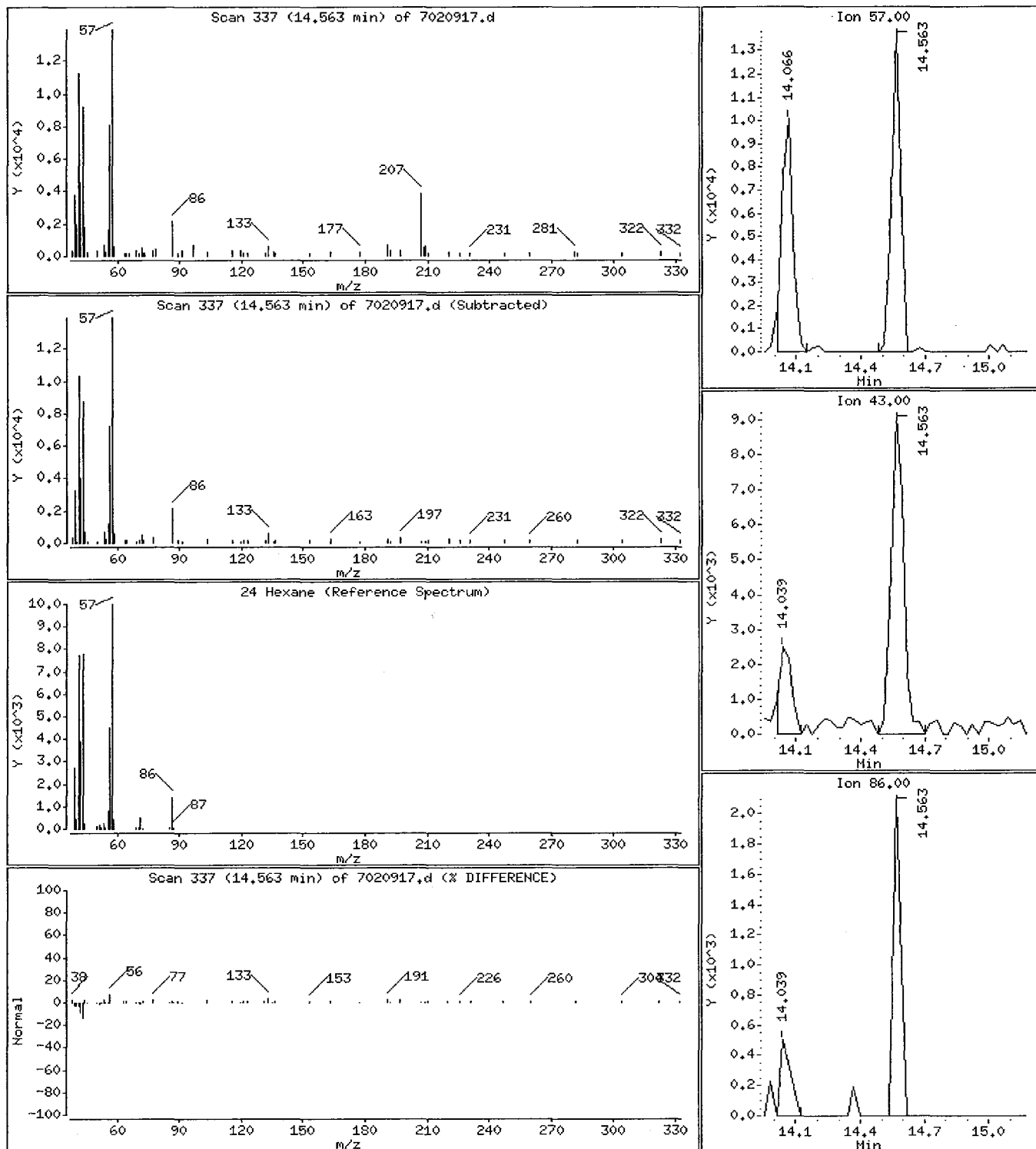
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.4005 PPBV



0277

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

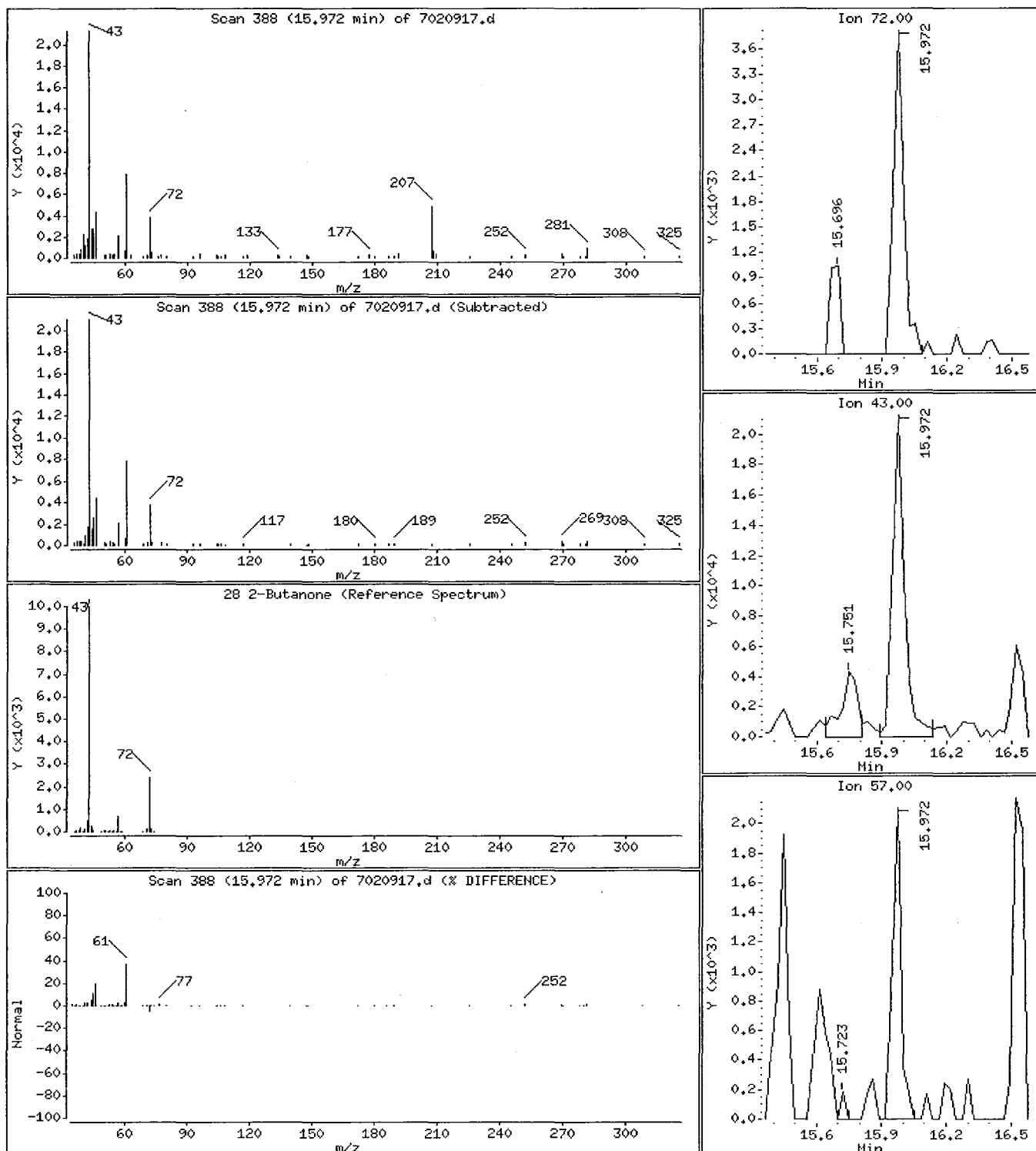
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

28 2-Butanone

Concentration: 0.4518 PPBV



0278

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

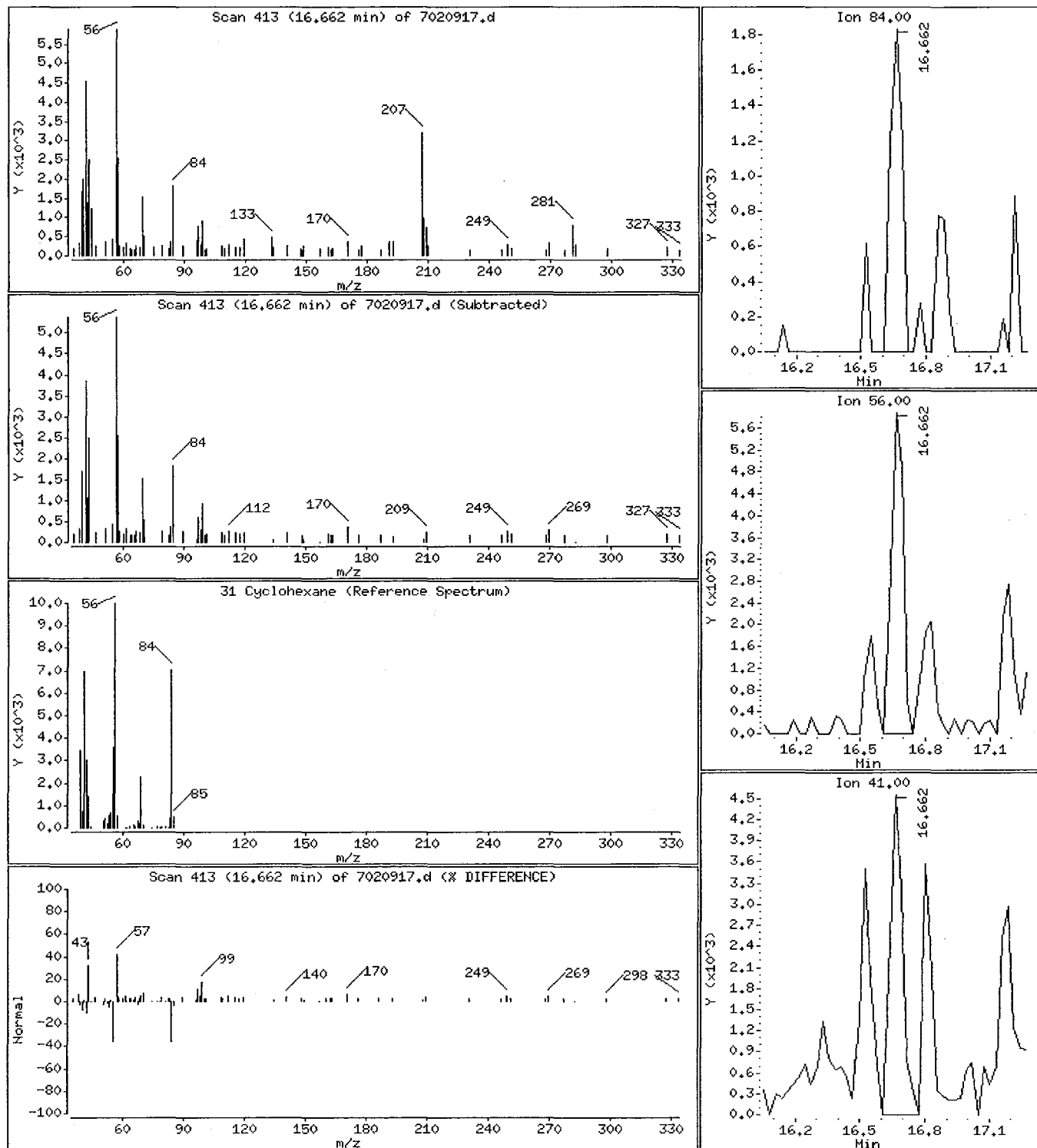
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.1229 PPBV



0279

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

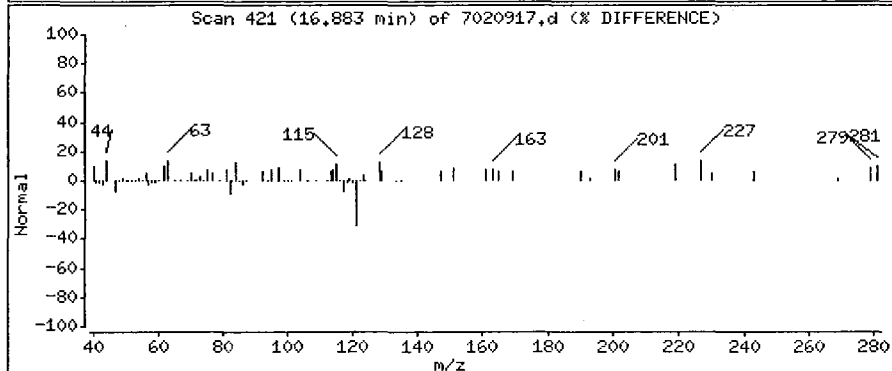
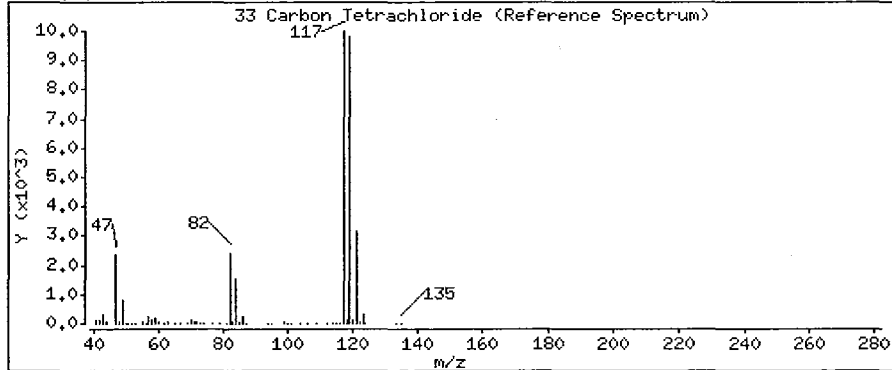
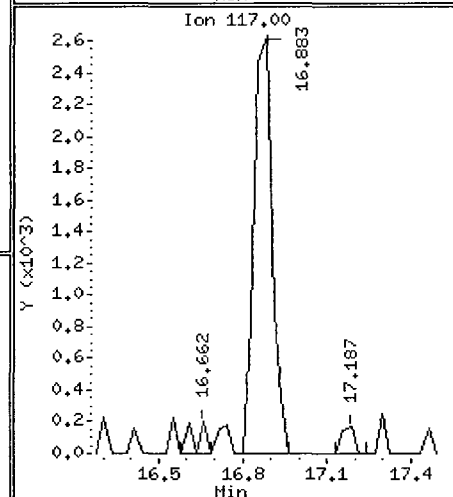
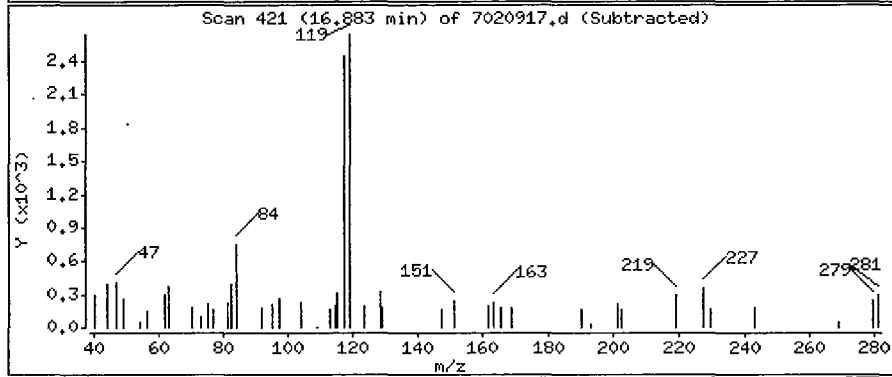
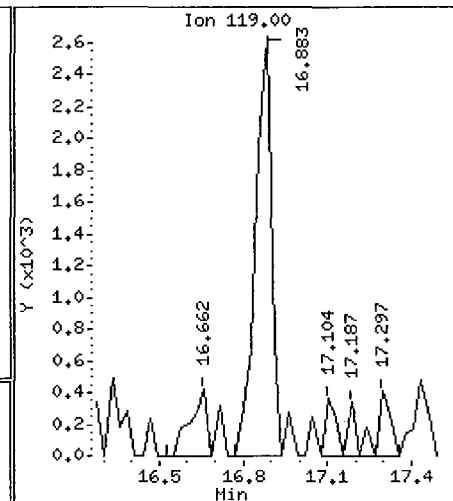
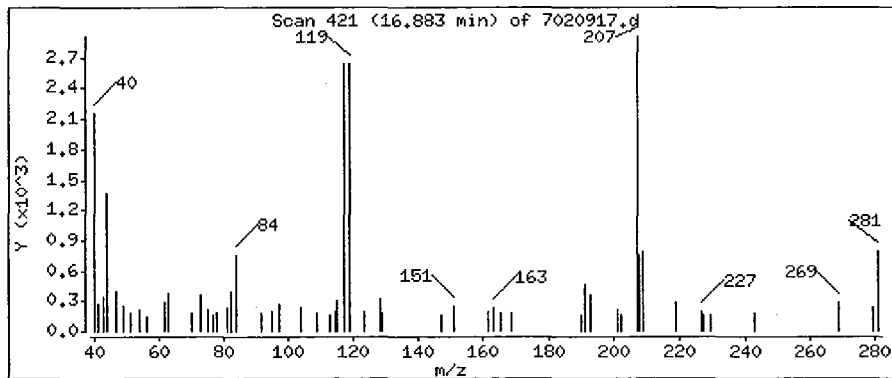
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1117 PPEV



0280

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

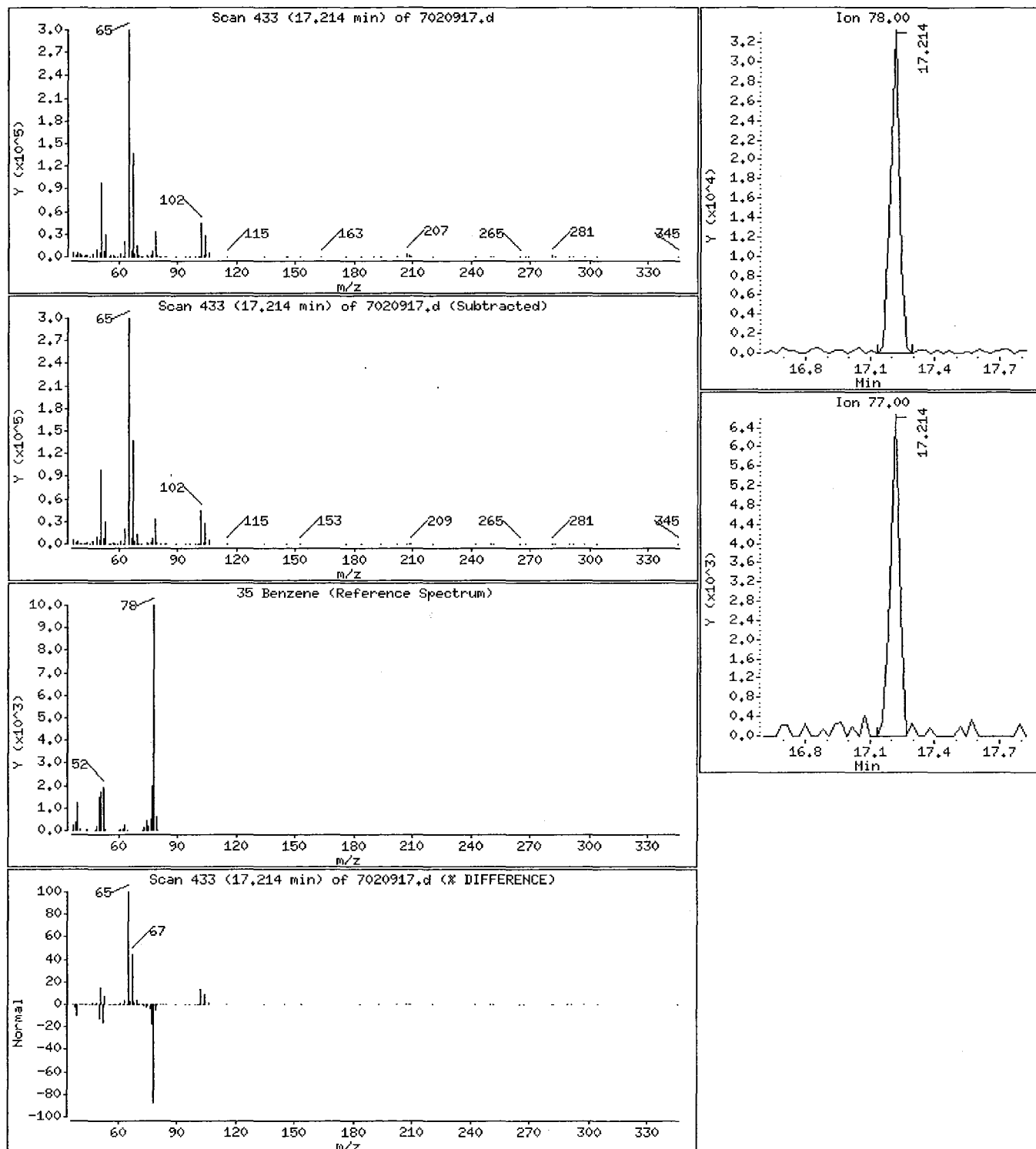
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.5493 PPBV



0281

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

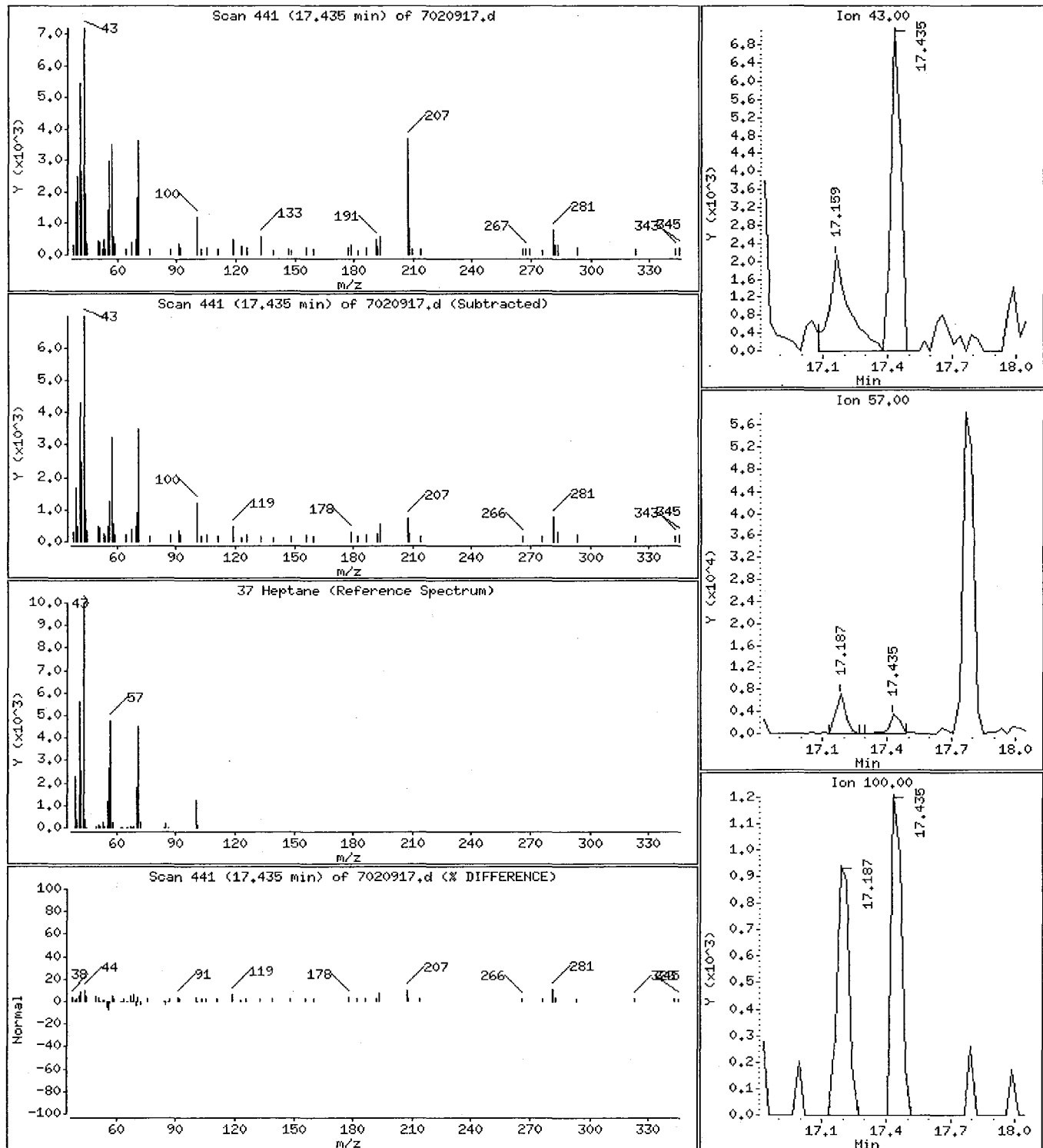
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.2222 PPBV



0282

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

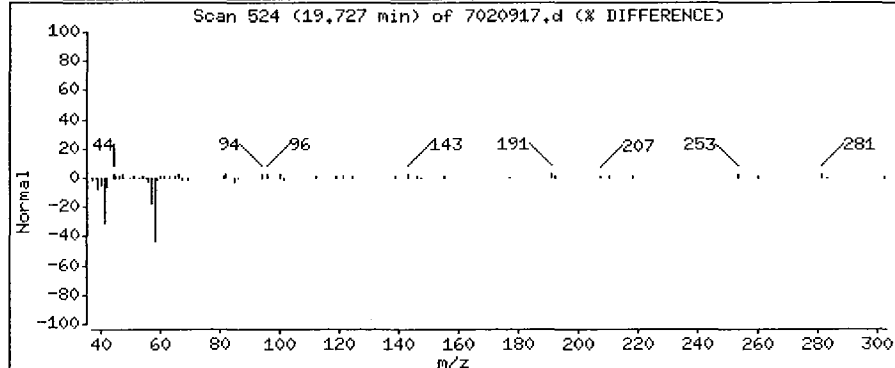
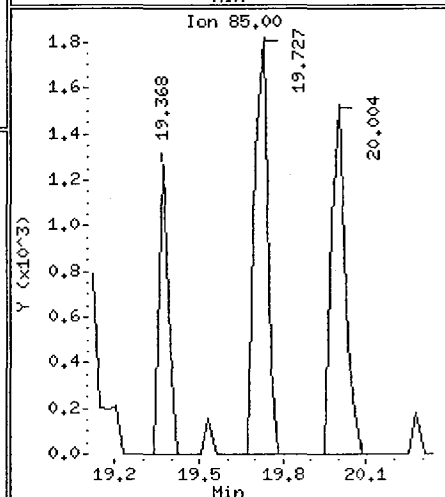
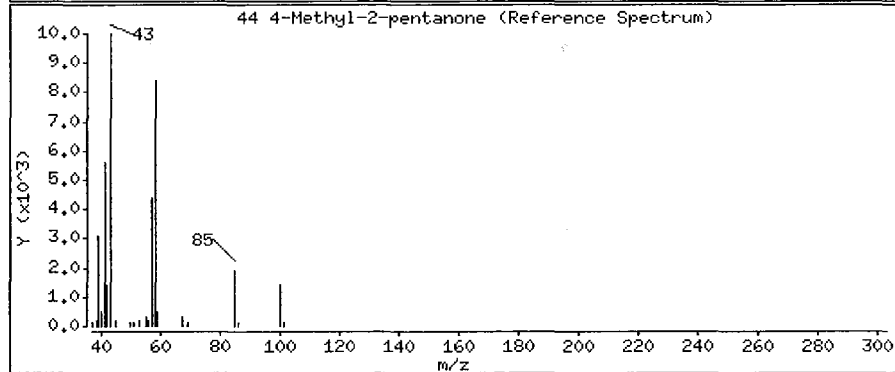
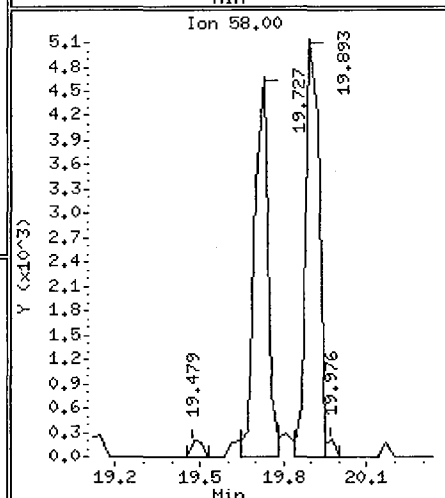
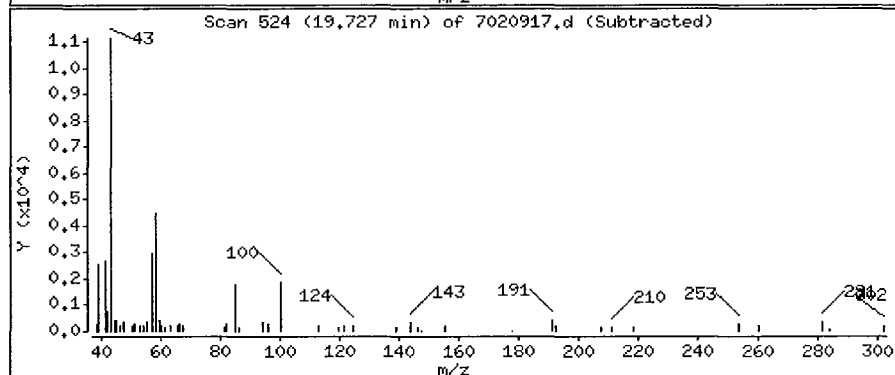
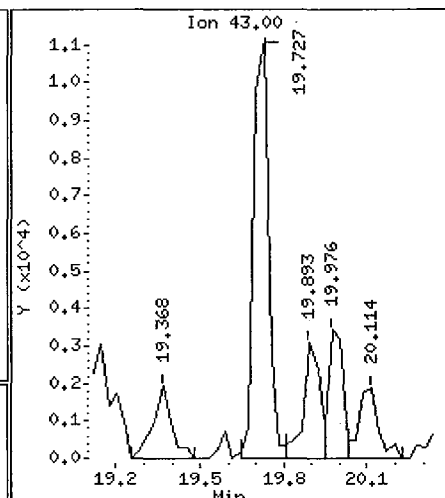
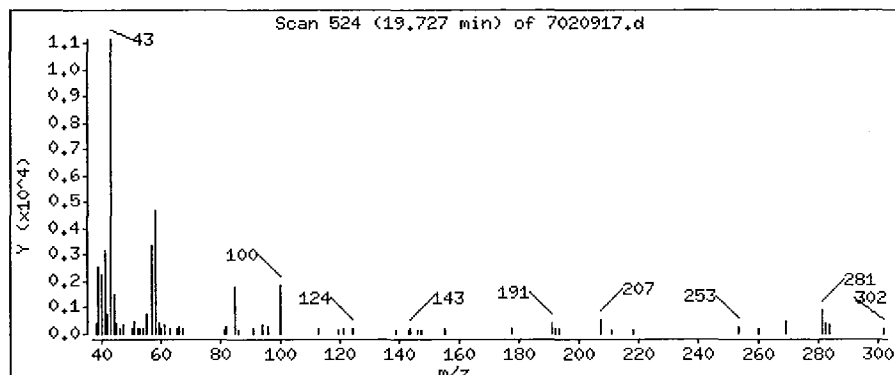
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.3767 PPBV



0283

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

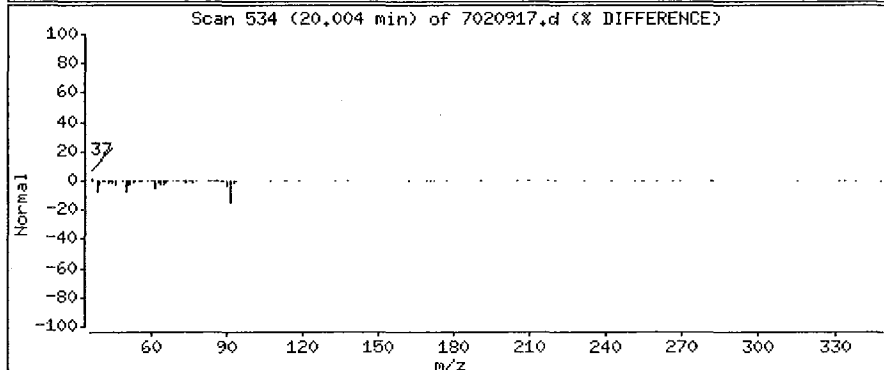
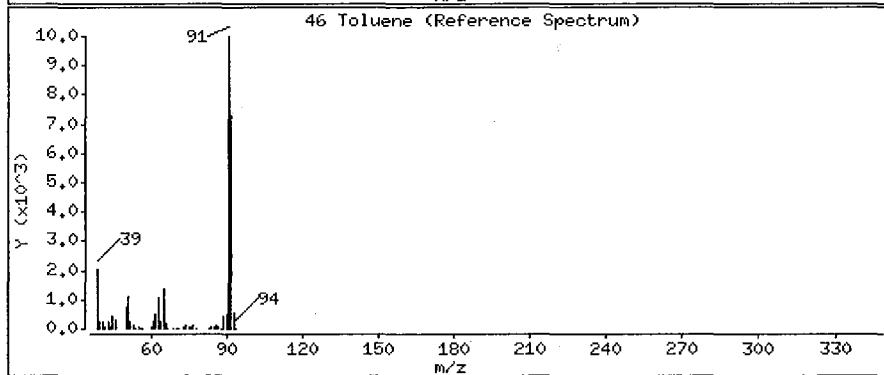
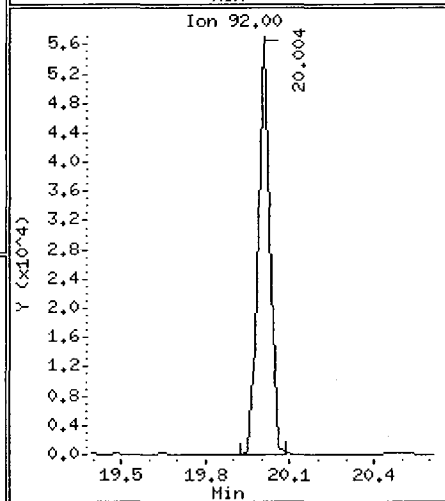
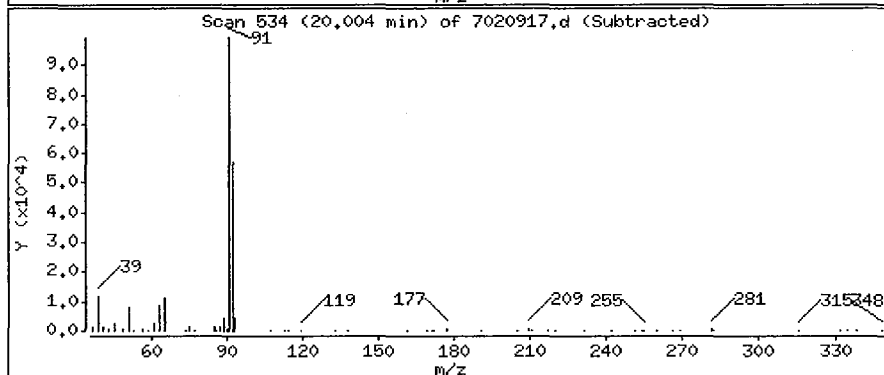
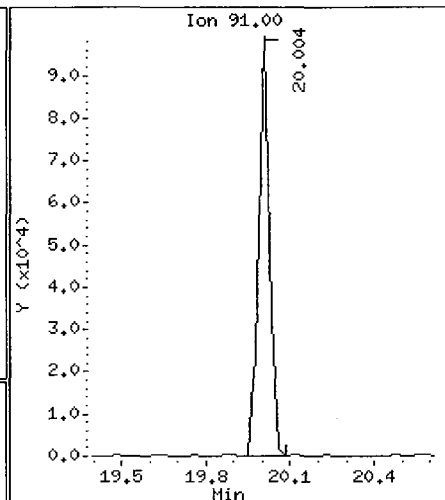
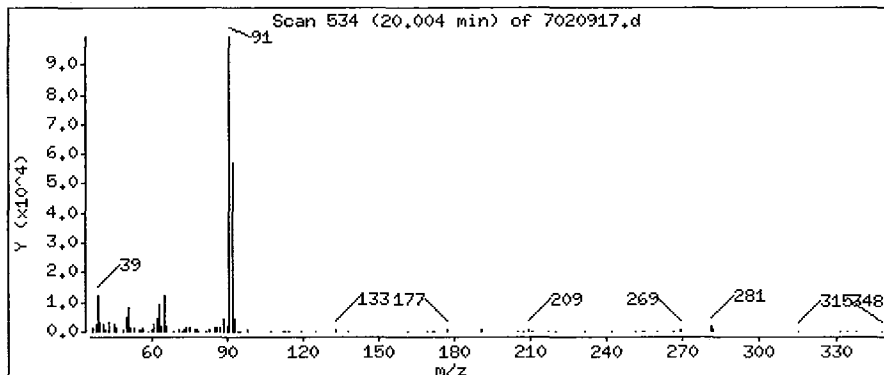
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 1.328 PPBV



0284

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

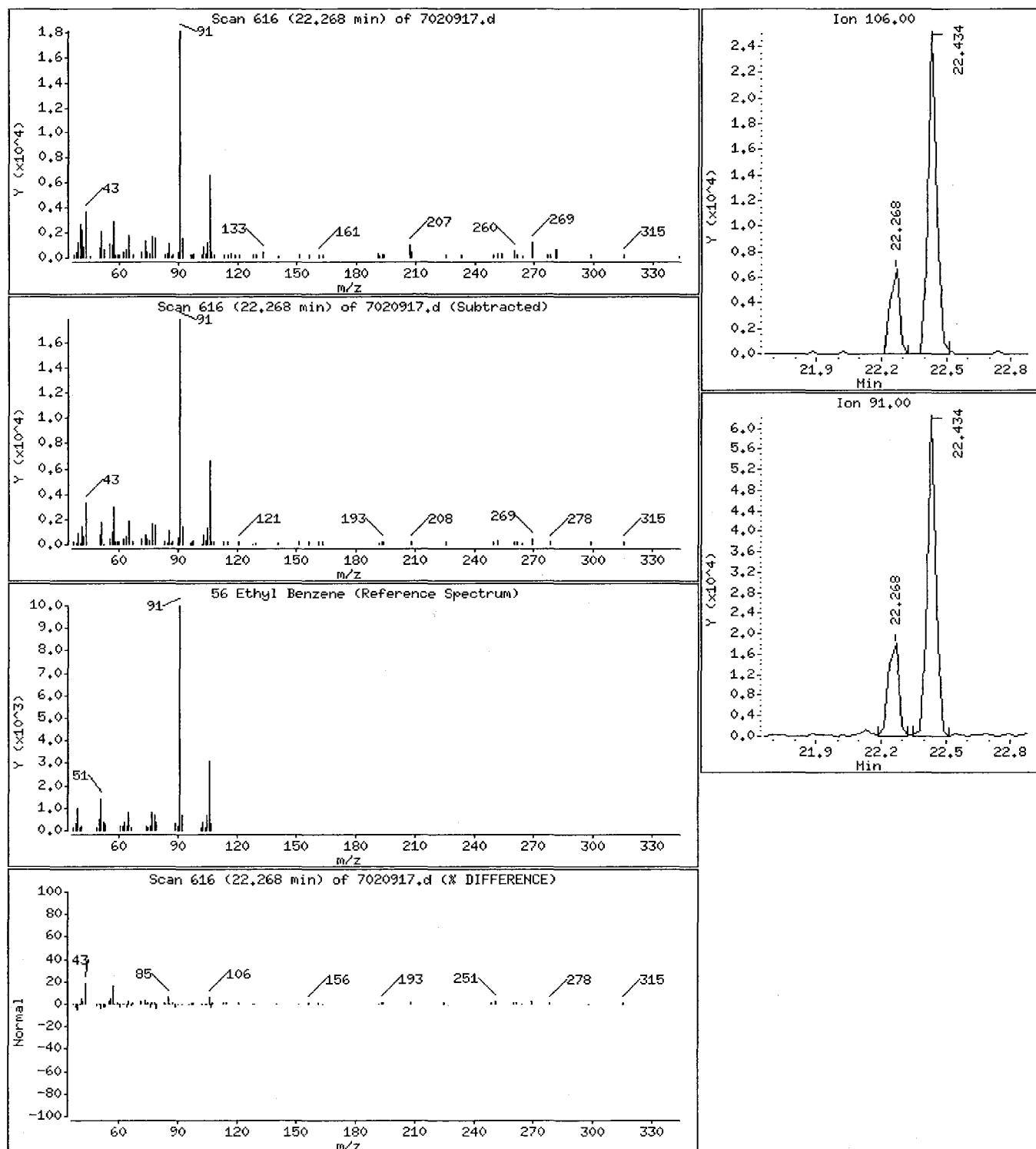
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.2803 PPBV



0285

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

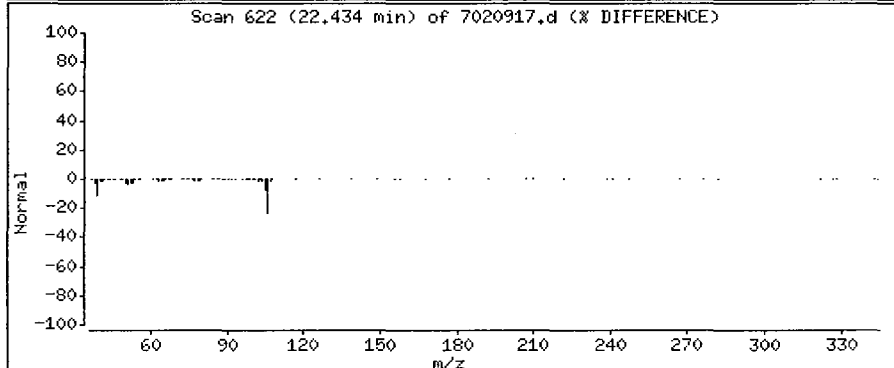
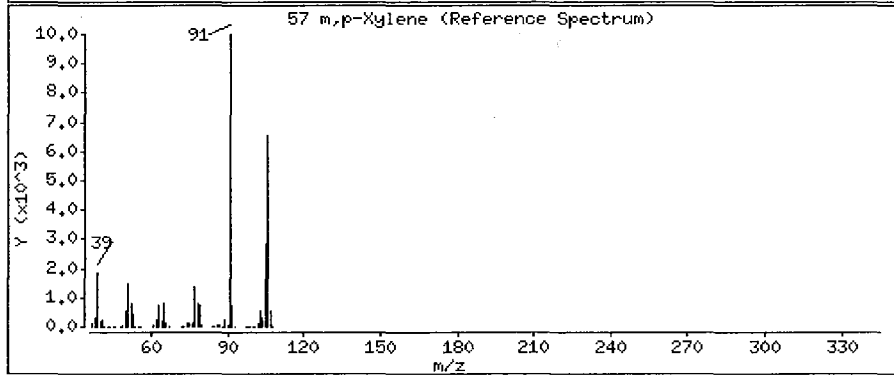
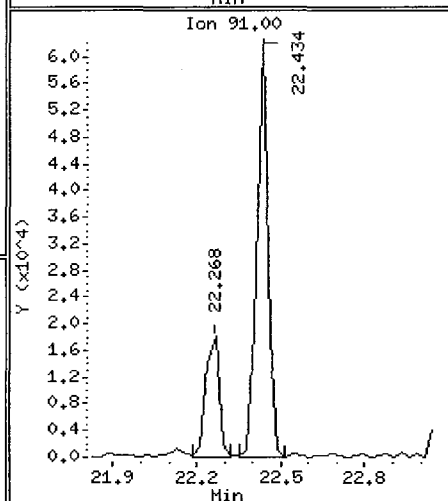
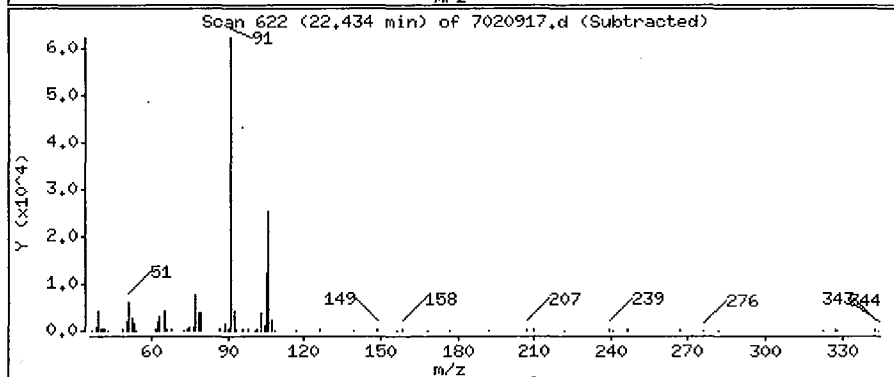
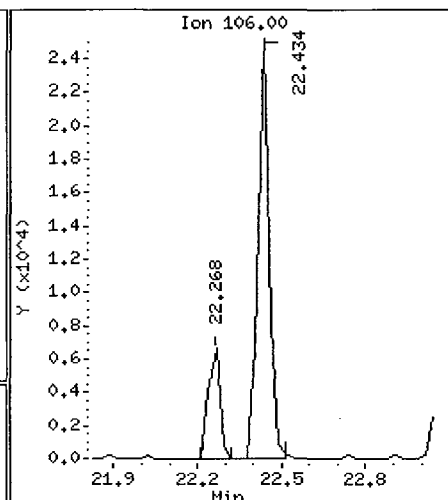
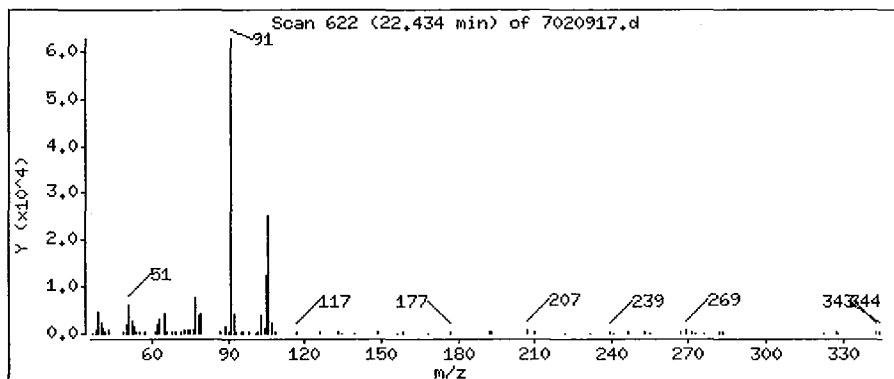
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 0.8281 PPBV



0286

Date: 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

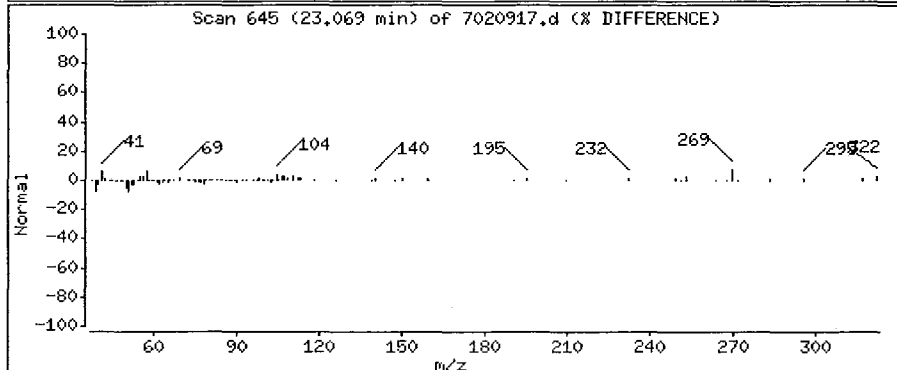
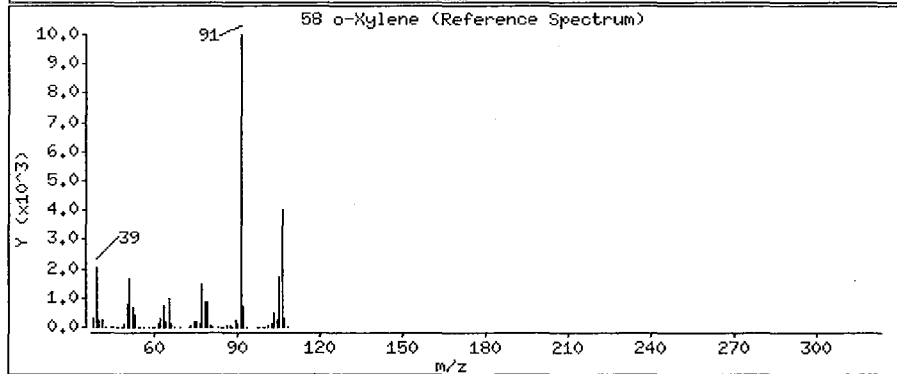
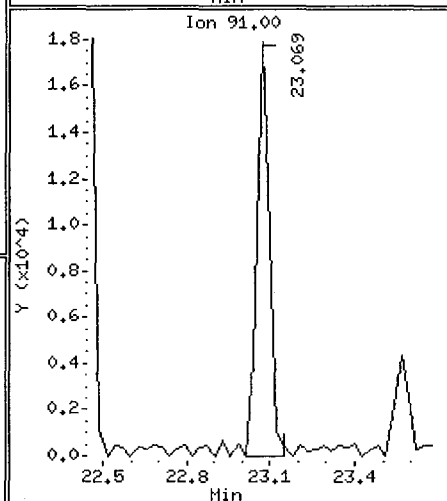
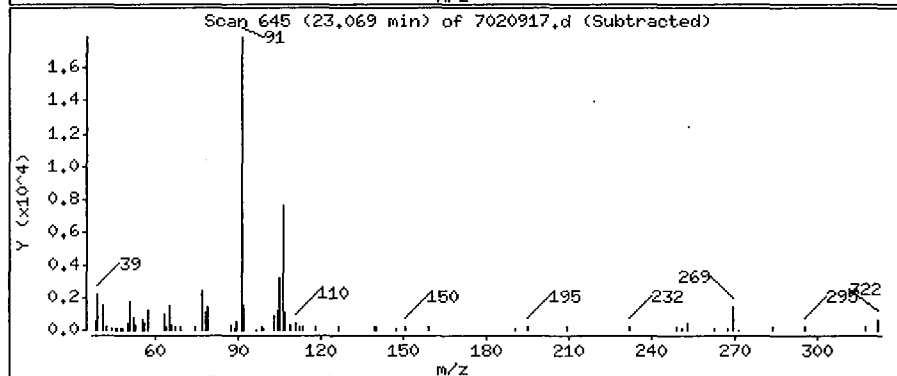
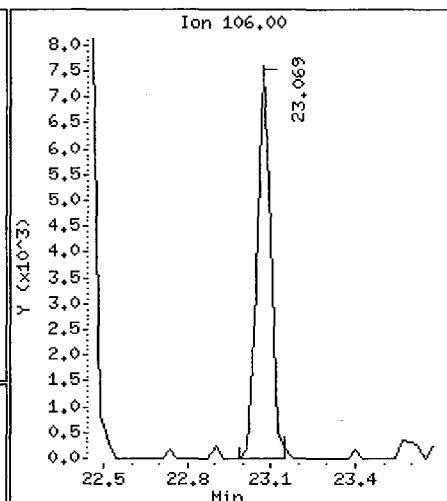
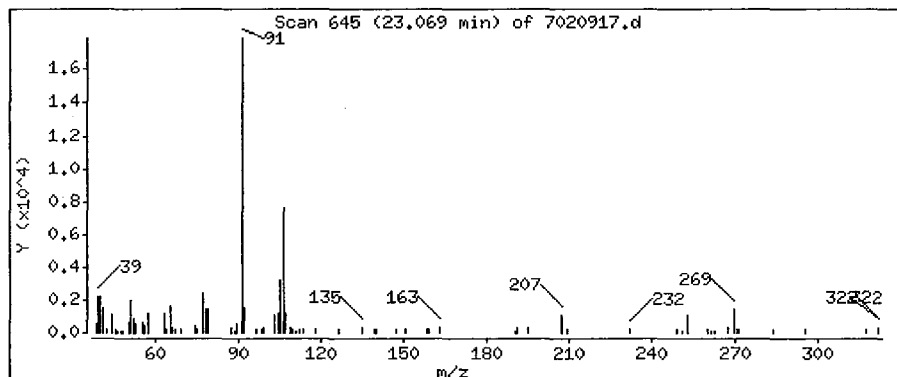
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.3794 PPBV



0287

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

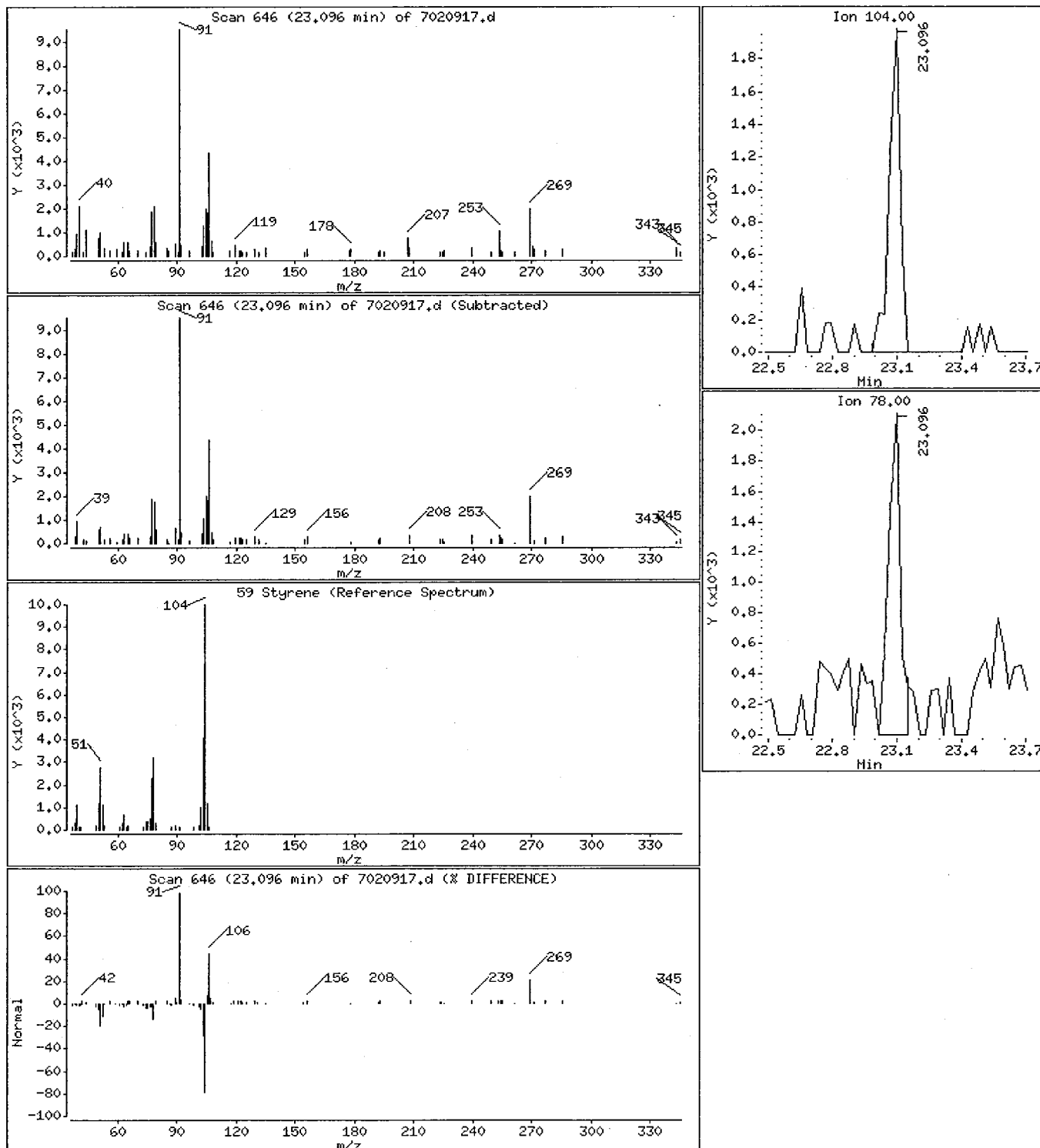
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.06774 PPBV



0288

SCOEPAA00031960

Date: 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

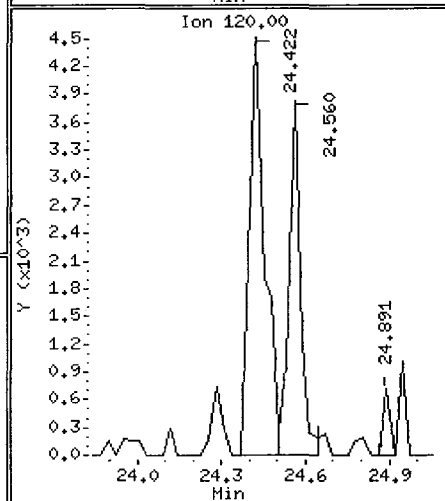
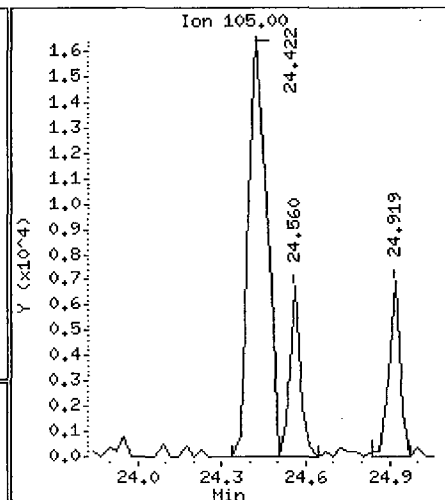
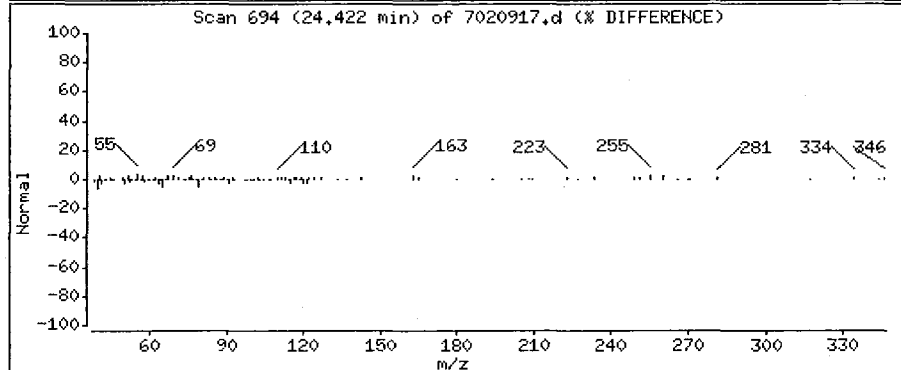
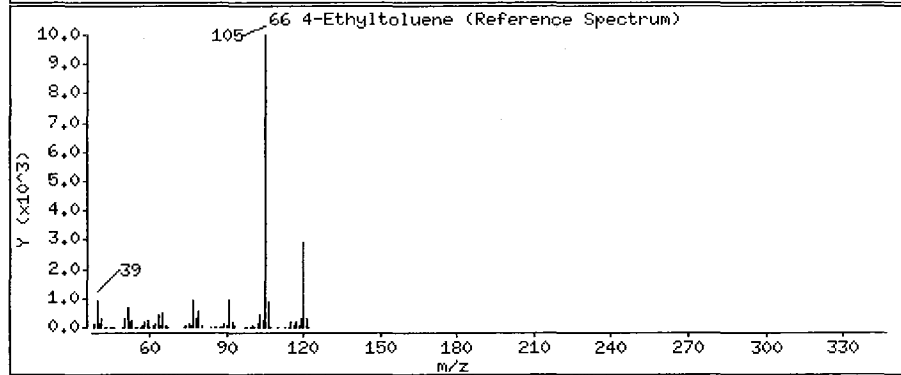
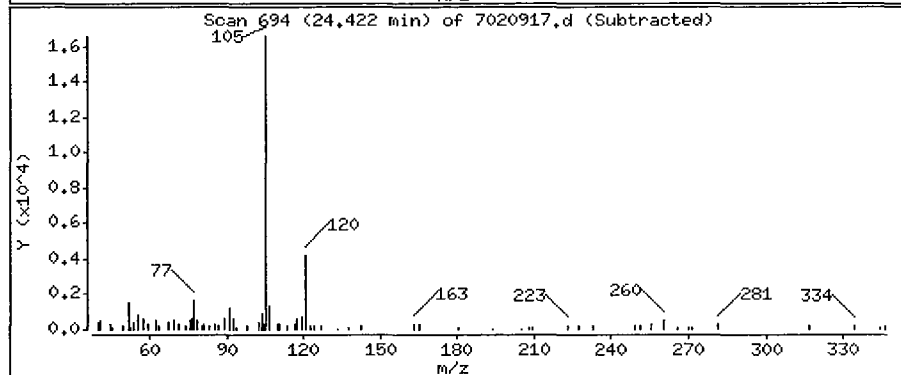
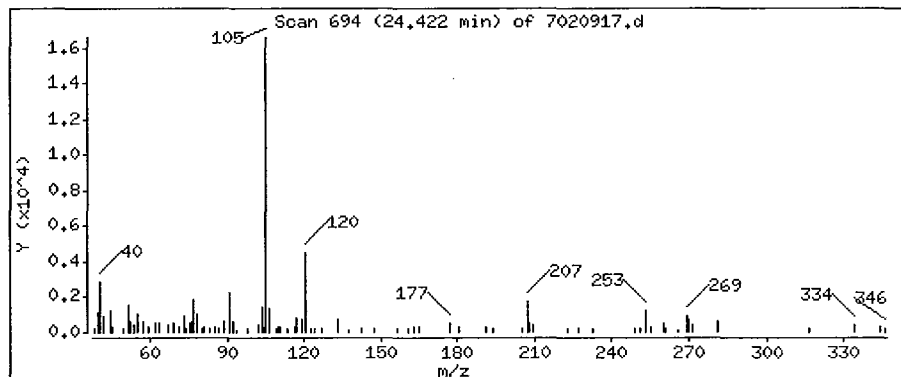
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.4194 PPBV



0289

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

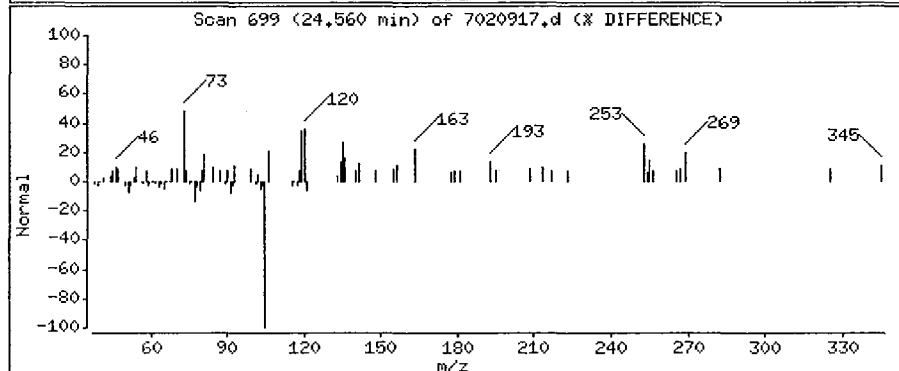
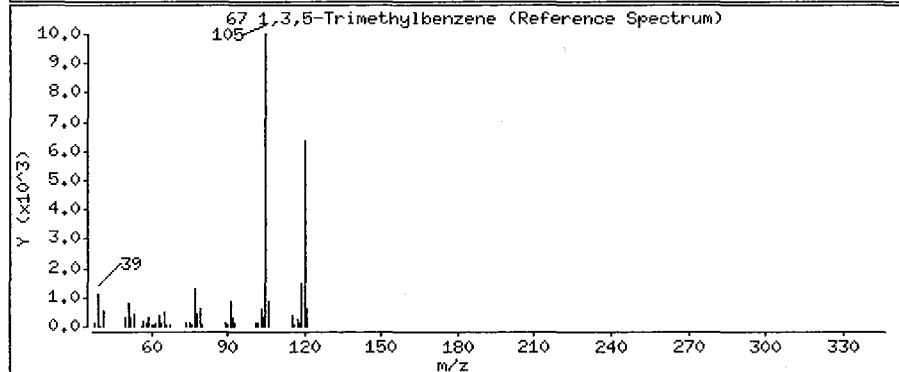
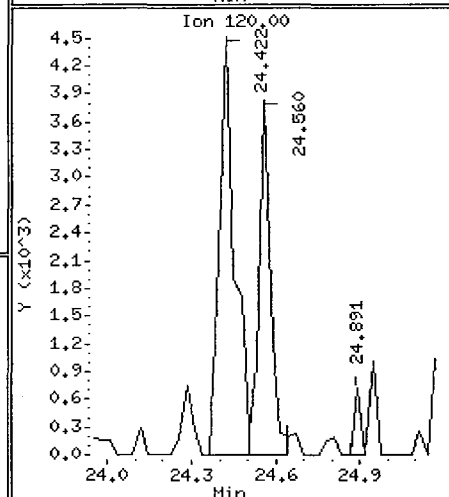
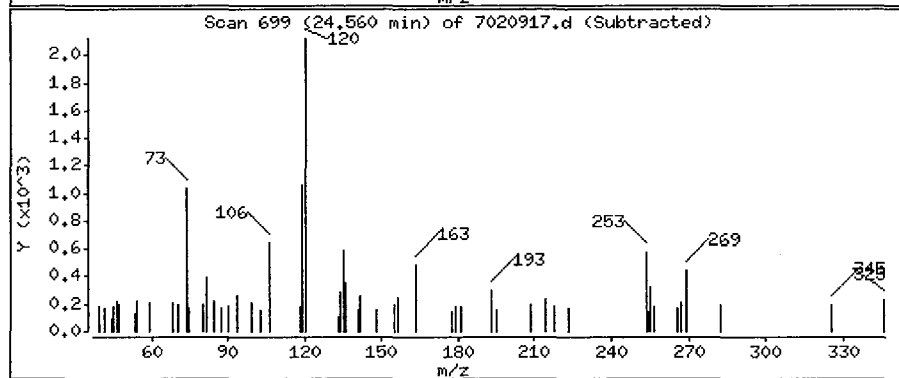
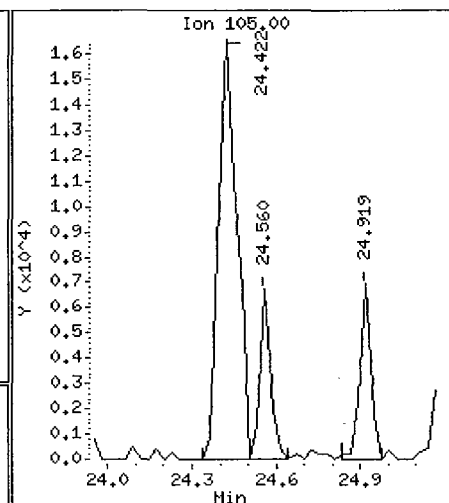
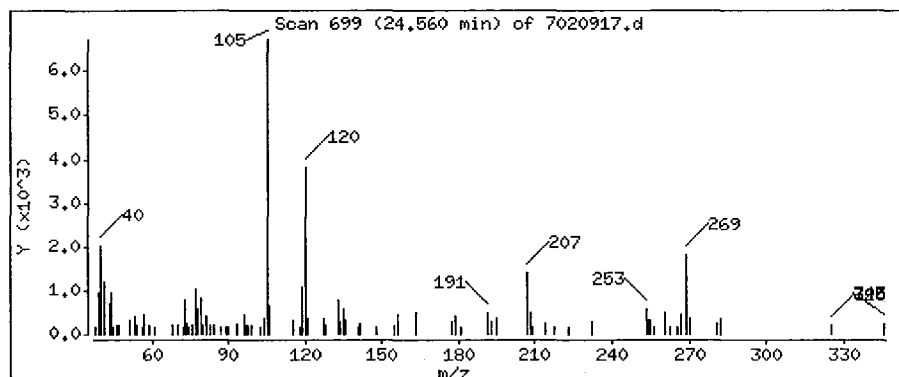
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1086 PPBV



0290

Date : 09-FEB-2005 18:19

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 9941

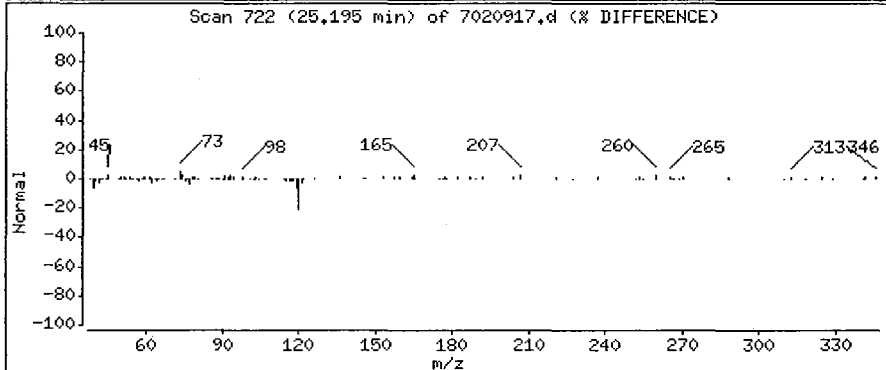
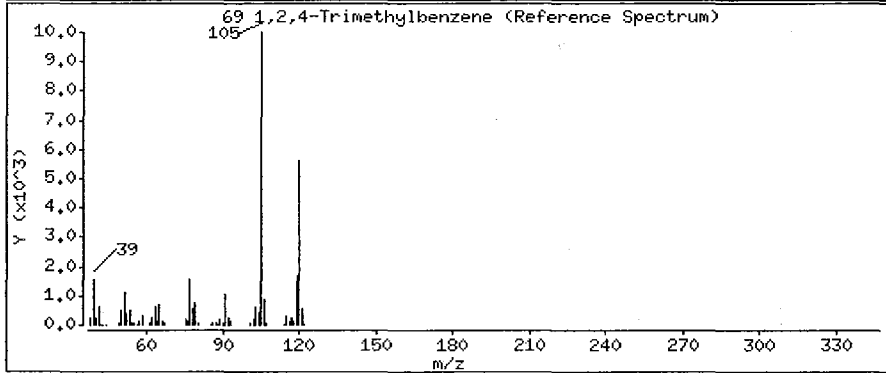
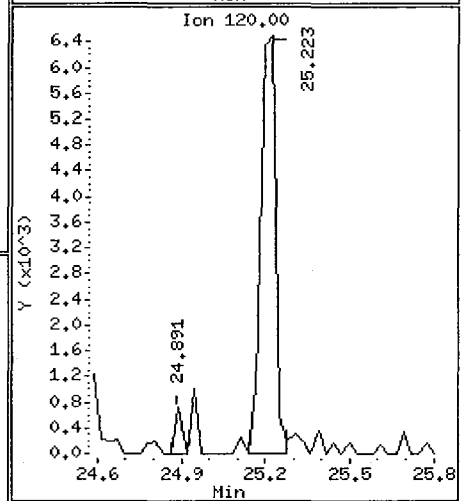
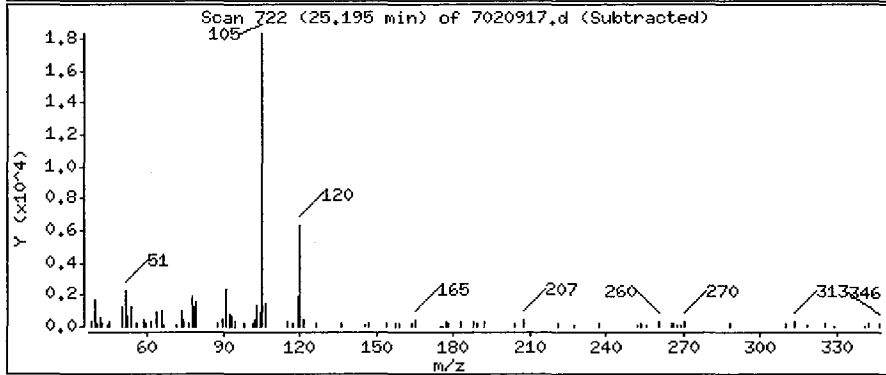
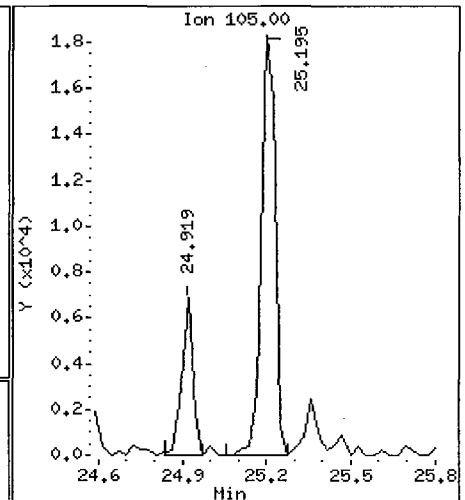
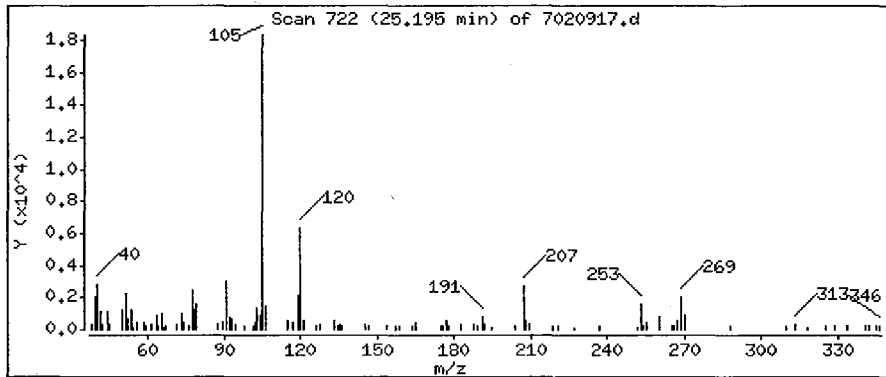
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.4205 PPBV



0291

AIR TOXICS LTD.

SAMPLE NAME: #9, Central Facilities Bldg, NW Rm

ID#: 0502032-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020915	Date of Collection:	1/25/05
Dil. Factor:	1.44	Date of Analysis:	2/9/05 04:59 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	1.3	0.71	6.4
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.14	0.40	0.30	0.84
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	3.0	0.81	17
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Freon 113	0.14	0.10 J	1.1	0.79 J
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	0.21	0.70	1.0
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Carbon Tetrachloride	0.14	0.12 J	0.91	0.78 J
Benzene	0.14	1.3	0.46	4.3
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
Toluene	0.14	6.8	0.54	26
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	1.0	0.62	4.4
m,p-Xylene	0.14	3.5	0.62	15
o-Xylene	0.14	1.2	0.62	5.3
Styrene	0.14	0.18	0.61	0.77
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.99	Not Detected
1,3,5-Trimethylbenzene	0.14	0.24	0.71	1.2
1,2,4-Trimethylbenzene	0.14	0.91	0.71	4.5
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
Methylene Chloride	0.29	0.72	1.0	2.5
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected
1,3-Butadiene	0.72	0.18 J	1.6	0.39 J
Acetone	0.72	2.5	1.7	6.0
Carbon Disulfide	0.72	0.16 J	2.2	0.50 J

AIR TOXICS LTD.

SAMPLE NAME: #9, Central Facilities Bldg, NW Rm

ID#: 0502032-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020915	Date of Collection:	1/25/05
Dil. Factor:	1.44	Date of Analysis:	2/9/05 04:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.72	27	1.8	66
trans-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	1.2	2.1	3.5
Hexane	0.72	1.1	2.5	3.8
Tetrahydrofuran	0.72	0.27 J	2.1	0.81 J
Cyclohexane	0.72	0.40 J	2.5	1.4 J
1,4-Dioxane	0.72	Not Detected	2.6	Not Detected
Bromodichloromethane	0.72	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	0.72	3.7	2.9	15
2-Hexanone	0.72	Not Detected	2.9	Not Detected
Dibromochloromethane	0.72	Not Detected	6.1	Not Detected
Bromoform	0.72	Not Detected	7.4	Not Detected
4-Ethyltoluene	0.72	0.89	3.5	4.4
Ethanol	0.72	5.9	1.4	11
Methyl tert-butyl ether	0.72	Not Detected	2.6	Not Detected
Heptane	0.72	0.55 J	3.0	2.3 J
Cumene	0.72	0.19 J	3.5	0.94 J
Propylbenzene	0.72	0.18 J	3.5	0.91 J
Naphthalene	0.72	Not Detected	3.8	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020915.d
Lab Smp Id: 0502032-09A
Inj Date : 09-FEB-2005 16:59
Operator : nk
Smp Info : 500ml Can# 25275
Misc Info : 2.0"Hg-5psi, Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.44000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #:	74-97-5	
16.331	16.331	(1.000)	130	448531	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	343343			26.96- 126.96	76.55
16.331	16.331	(1.000)	49	795792			126.50- 226.50	177.42

* 38 1,4-Difluorobenzene						CAS #:	540-36-3	
17.794	17.794	(1.000)	114	2043862	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	363914			0.00- 67.64	17.81

* 54 Chlorobenzene-d5						CAS #:	3114-55-4	
22.130	22.130	(1.000)	117	1446546	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	895149			9.26- 109.26	61.88

\$ 34 1,2-Dichloroethane-d4						CAS #:	17060-07-0	
17.214	17.214	(1.054)	65	963599	10.4308	10.431	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	440221			0.17- 100.17	45.69

\$ 45 Toluene-d8						CAS #:	2037-26-5	
19.893	19.893	(1.118)	98	1716035	9.84130	9.841	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	217769			0.00- 62.11	12.69

0294

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	==	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1266110			22.24- 122.24	73.78

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.953	23.953	(1.082)	174	810334	10.8439	10.844	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1219406			97.68- 197.68	150.48
23.953	23.953	(1.082)	176	781835			43.78- 143.78	96.48

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	325131	0.89428	1.288	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	103013			0.00- 81.67	31.68

4 Chloromethane						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	29496	0.28141	0.4052	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	8613			0.00- 84.65	29.20

7 1,3-Butadiene						CAS #: 106-99-0		
8.295	8.295	(0.508)	54	11796	0.12345	0.1778	80.00- 120.00	100.00 (a)
8.322	8.295	(0.510)	39	11990			48.03- 148.03	101.64

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	665164	2.10402	3.030	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	424667			13.78- 113.78	63.84

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	183211	4.12890	5.946	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	45107			0.00- 76.71	24.62
12.050	12.050	(0.738)	46	72141			0.00- 90.17	39.38

15 Freon 113						CAS #: 76-13-1		
12.547	12.547	(0.768)	151	9381	0.07179	0.1034	80.00- 120.00	100.00 (a)
12.575	12.547	(0.770)	153	4866			10.77- 110.77	51.87
12.547	12.547	(0.768)	101	7612			83.72- 183.72	81.14

16 Acetone						CAS #: 67-64-1		
12.851	12.824	(0.787)	43	417850	1.76795	2.546	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	116115			0.00- 78.78	27.79

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	4147078	18.5639	26.732	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	824142			0.00- 69.75	19.87
13.238	13.238	(0.811)	59	143320			0.00- 53.72	3.46

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	32697	0.11139	0.1604	80.00- 120.00	100.00 (a)

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
---	-----	-----	----	-----	-----	-----	-----	-----	
20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	46991	0.50241	0.7235	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	66352			111.57- 211.57	141.20	
13.735	13.735	(0.841)	51	26461			0.00- 93.42	56.31	

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	131789	0.74360	1.071	80.00- 120.00	100.00	
14.563	14.563	(0.892)	43	100714			15.23- 115.23	76.42	
14.563	14.563	(0.892)	86	24231			0.00- 65.23	18.39	

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	40076	0.81826	1.178	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	212205			1046.10-1146.10	529.51	
15.972	15.972	(0.978)	57	17148			0.00- 89.21	42.79	

23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	25874	0.19038	0.2741	80.00- 120.00	100.00(a)	
16.331	16.331	(1.000)	71	13011			0.00- 82.39	50.29	
16.331	16.331	(1.000)	72	9858			0.00- 86.54	38.10	

30 Chloroform						CAS #: 67-66-3			
16.414	16.414	(1.005)	83	31492	0.14678	0.2114	80.00- 120.00	100.00	
16.414	16.414	(1.005)	85	20195			14.01- 114.01	64.13	

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	27284	0.27842	0.4009	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	108943			93.37- 193.37	399.29	
16.662	16.662	(1.020)	41	69406			30.80- 130.80	254.38	

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	13895	0.08627	0.1242	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	11456			62.01- 162.01	82.45	

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	277514	0.93558	1.347	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	60806			0.00- 72.07	21.91	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	66344	0.38307	0.5516	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	30869			1.42- 101.42	46.53	
17.435	17.435	(0.980)	100	9552			0.00- 66.93	14.40	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	491478	2.56518	3.694	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	168607			0.00- 87.49	34.31	
19.727	19.727	(1.109)	85	73152			0.00- 66.91	14.88	

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	1606773	4.72823	6.809	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	1000534			11.18- 111.18	62.27	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	84278	0.70961	1.022	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	292525			294.68- 394.68	347.10	

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	353743	2.43526	3.507	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	806389			168.06- 268.06	227.96	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	99787	0.84354	1.215	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	224922			186.48- 286.48	225.40	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	22983	0.12551	0.1807	80.00- 120.00	100.00	
23.096	23.096	(1.044)	78	26826			6.37- 106.37	116.72	

62 Cumene						CAS #: 98-82-8			
23.566	23.621	(1.065)	105	38096	0.13266	0.1910	80.00- 120.00	100.00(a)	
23.594	23.621	(1.066)	120	3666			0.00- 70.65	9.62	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	50641	0.12815	0.1845	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	10450			0.00- 69.13	20.64	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	195714	0.62094	0.8942	80.00- 120.00	100.00	
24.422	24.450	(1.104)	120	50830			0.00- 73.94	25.97	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	46059	0.16471	0.2372	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	20043			0.00- 88.64	43.52	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	168761	0.63085	0.9084	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	65678			0.00- 87.09	38.92	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0297

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020915.d
Lab Smp Id: 0502032-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 2.0"Hg-5psi, Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	448531	-5.49
38 1,4-Difluorobenze	2234295	1340577	3128013	2043862	-8.52
54 Chlorobenzene-d5	1557243	934346	2180140	1446546	-7.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0298

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-09A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 2.0"Hg-5psi, Clayton

	CONC	CONC	%	
SURROGATE COMPOUND	ADDED	RECOVERED	RECOVERED	LIMITS
	PPBV	PPBV		
\$ 34 1,2-Dichloroethane	10.000	10.431	104.31	70-130
\$ 45 Toluene-d8	10.000	9.841	98.41	70-130
\$ 63 Bromofluorobenzene	10.000	10.844	108.44	70-130

0299

SCOEPA00031971

Date : 09-FEB-2005 16:59

Client ID:

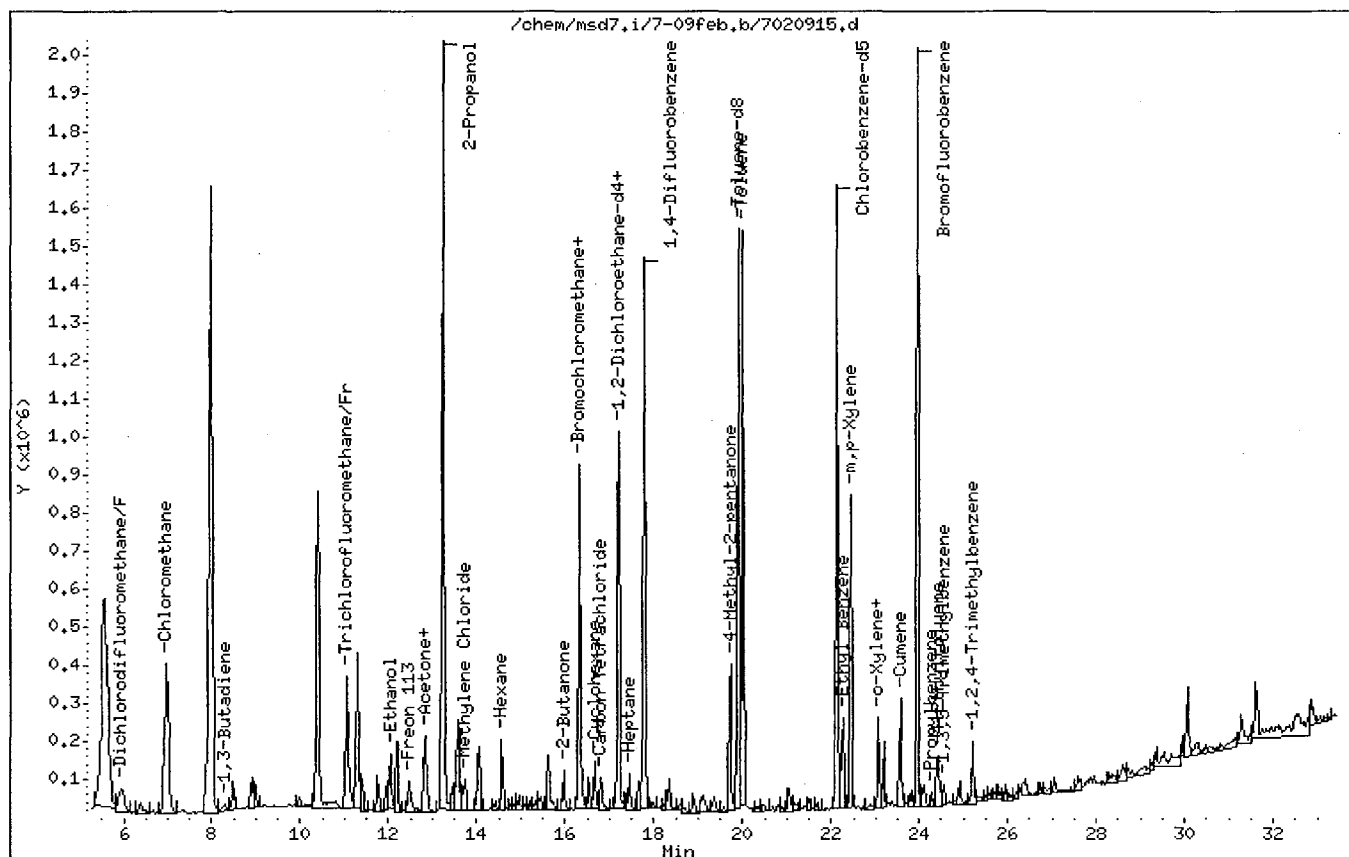
Instrument: msd7.i

Sample Info: 500ml Can# 25275

Operator: nk

Column phase: RTx-624

Column diameter: 0.32



0300

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

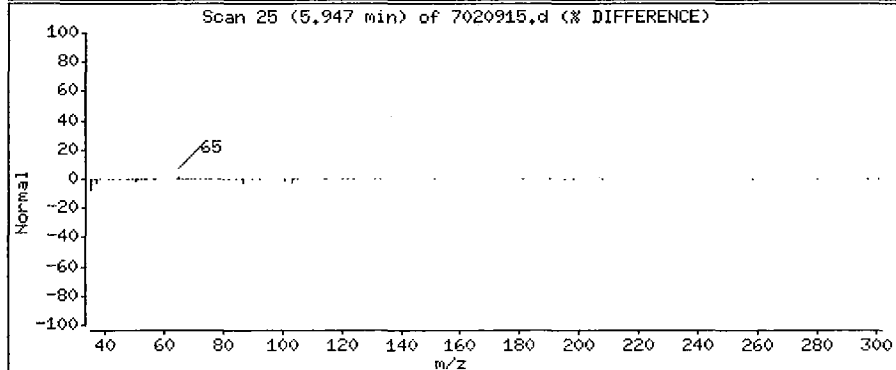
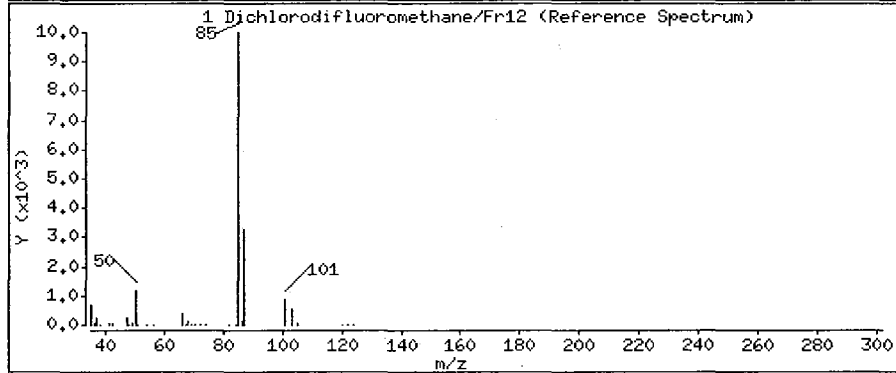
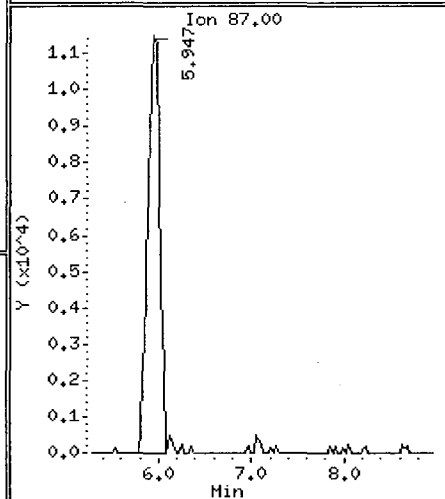
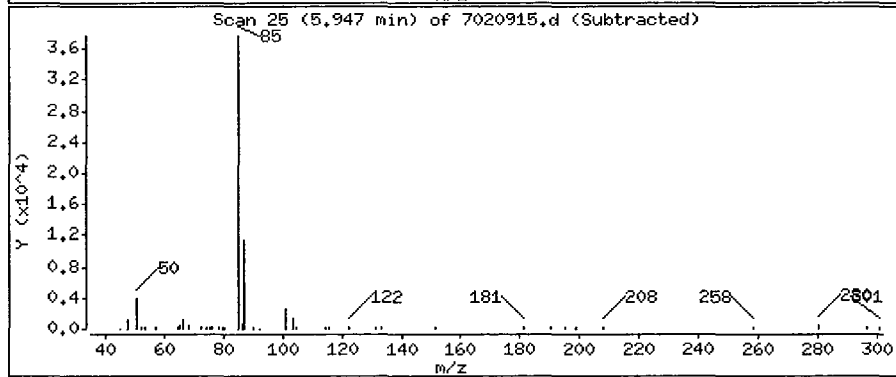
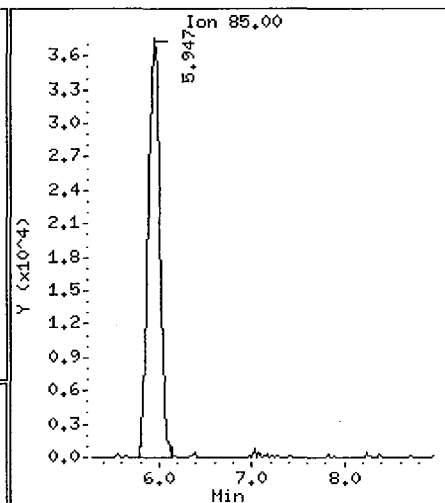
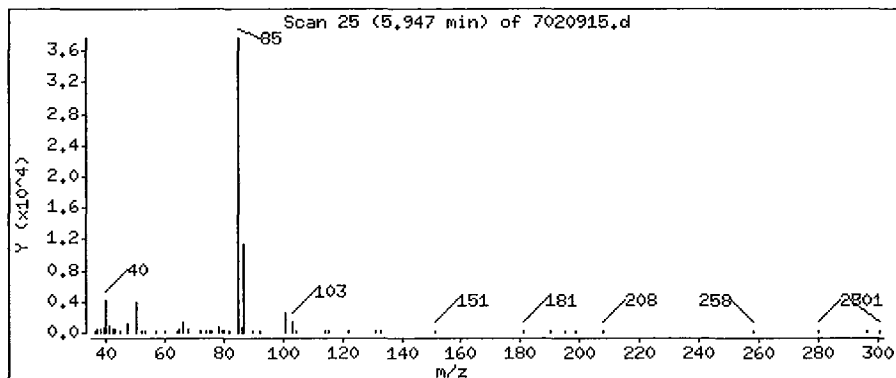
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.288 PPBV



0301

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

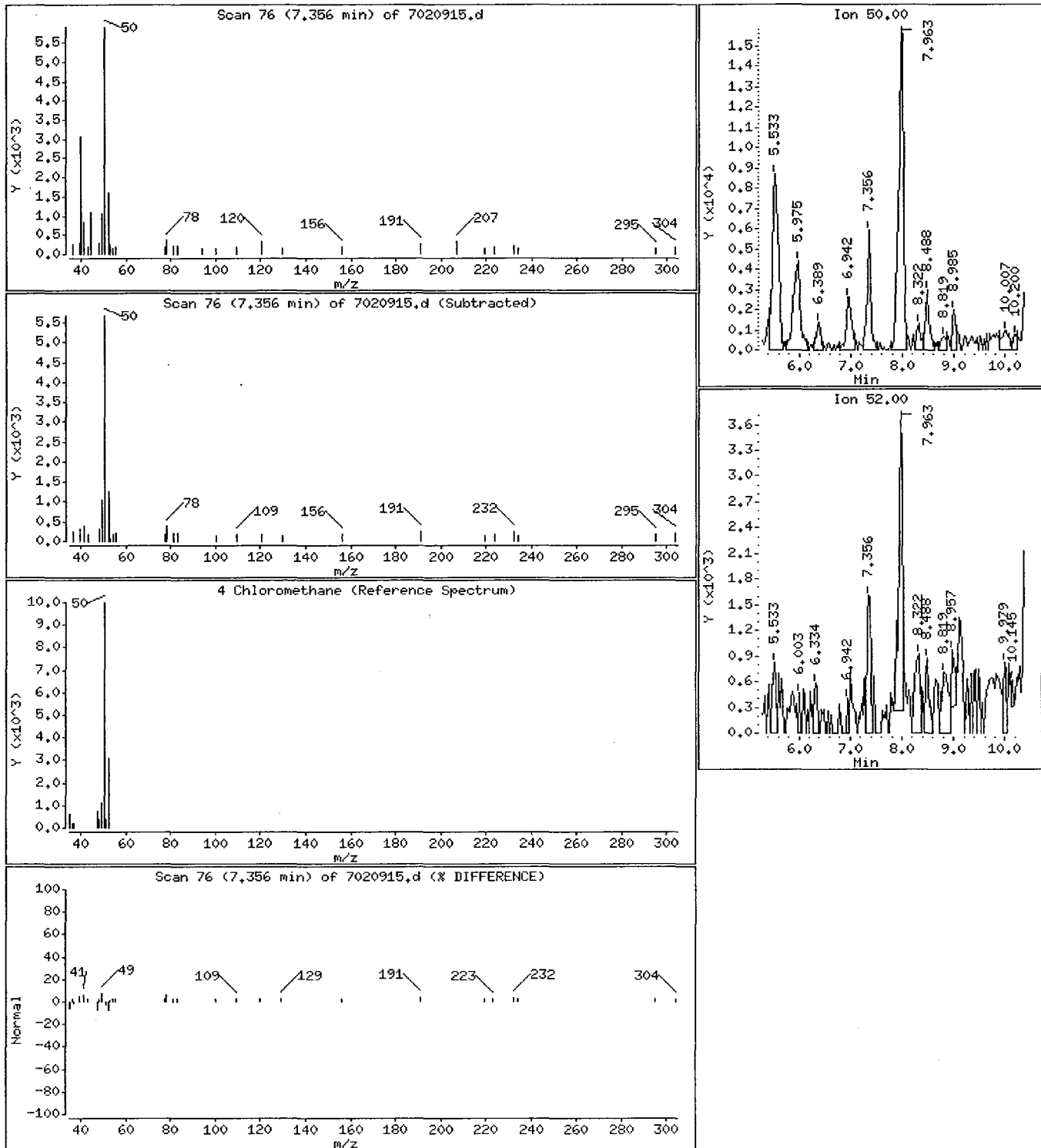
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4052 PPEV



0302

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

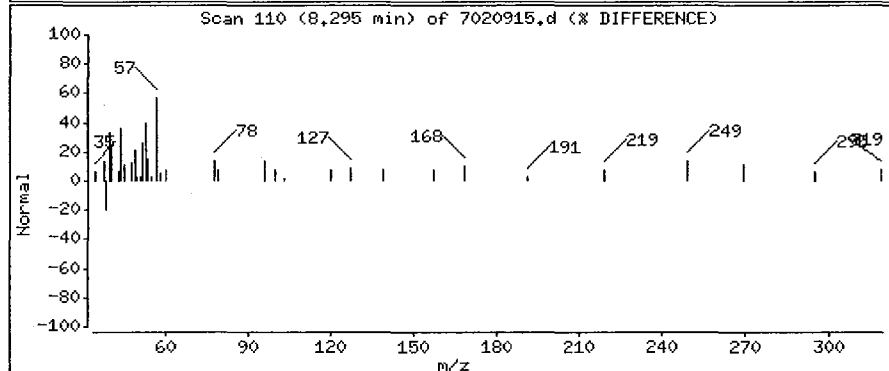
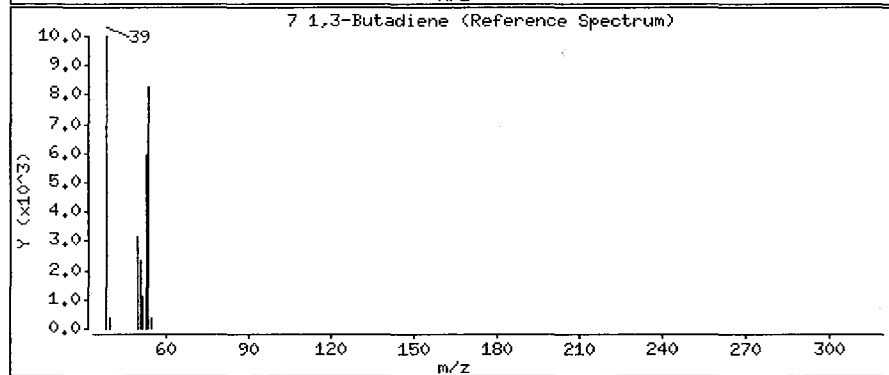
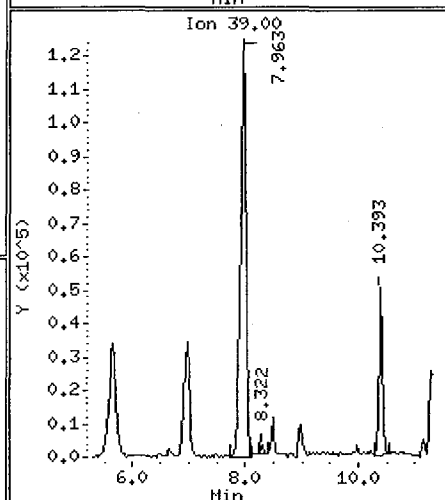
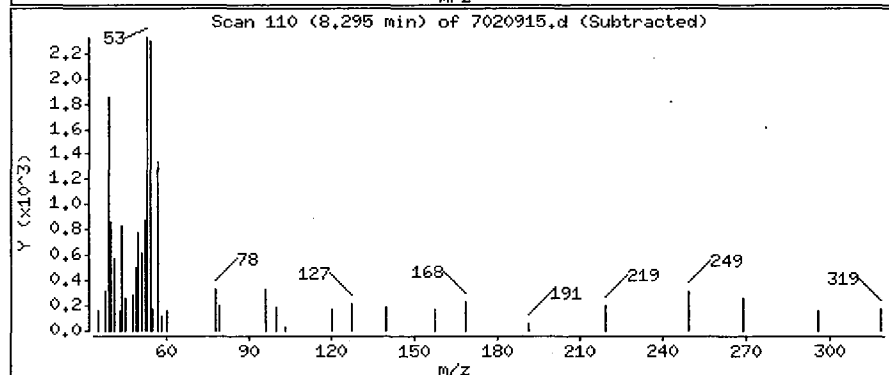
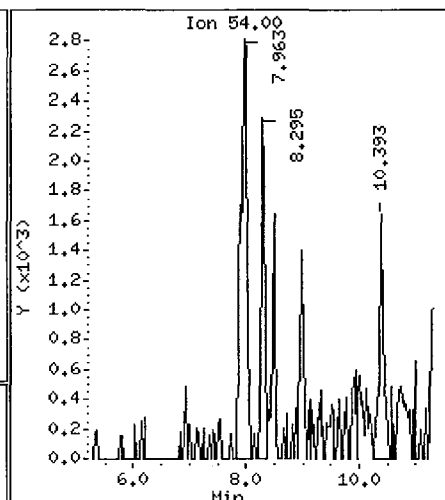
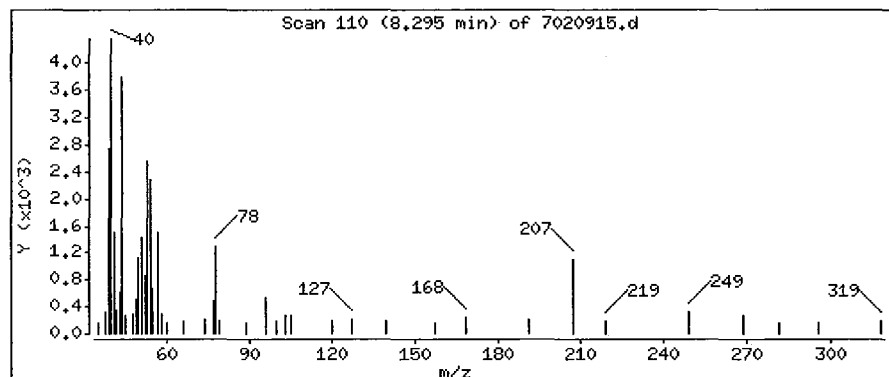
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1778 PPBV



0303

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

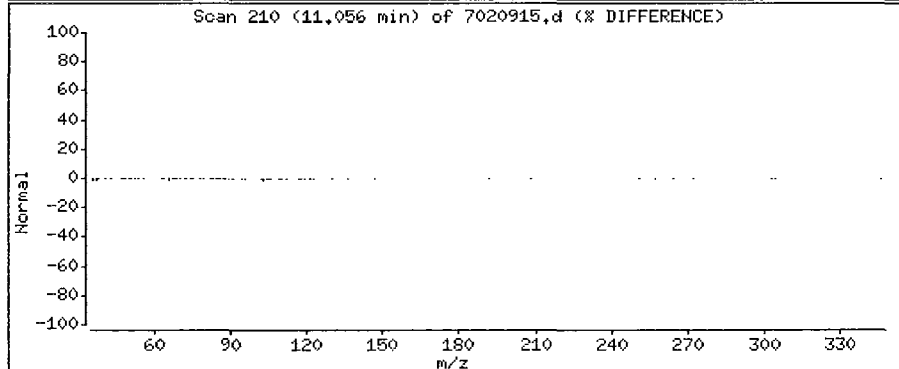
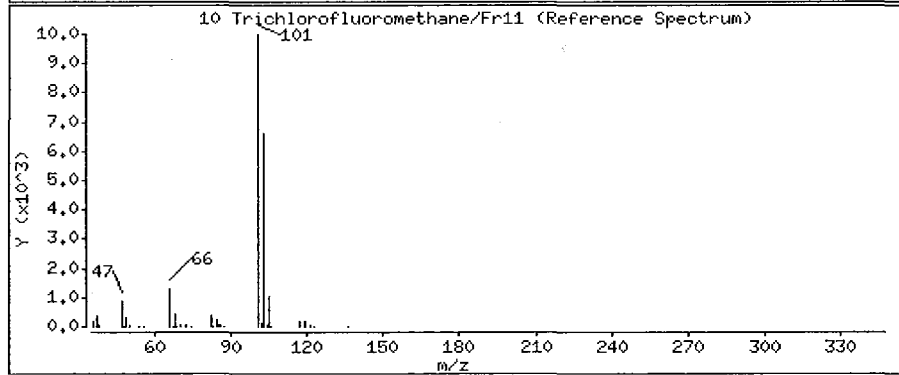
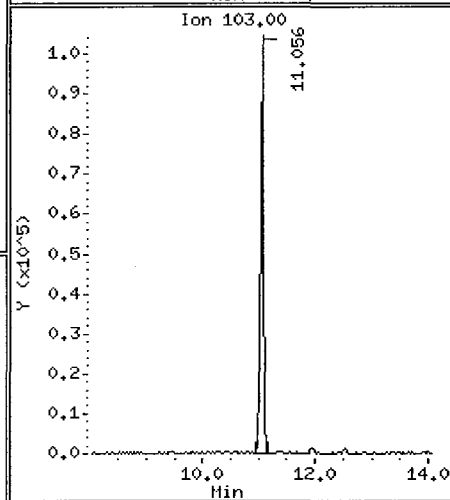
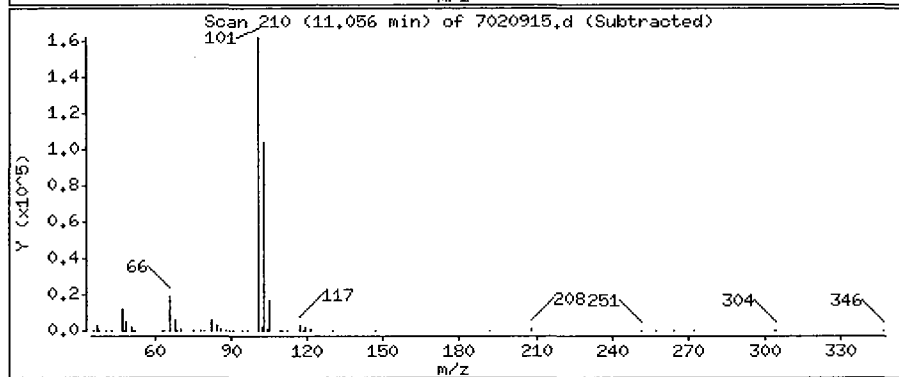
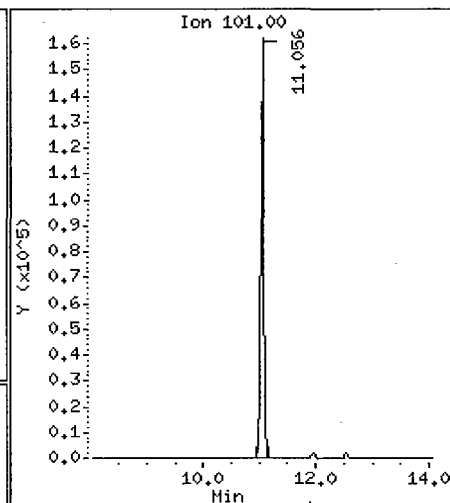
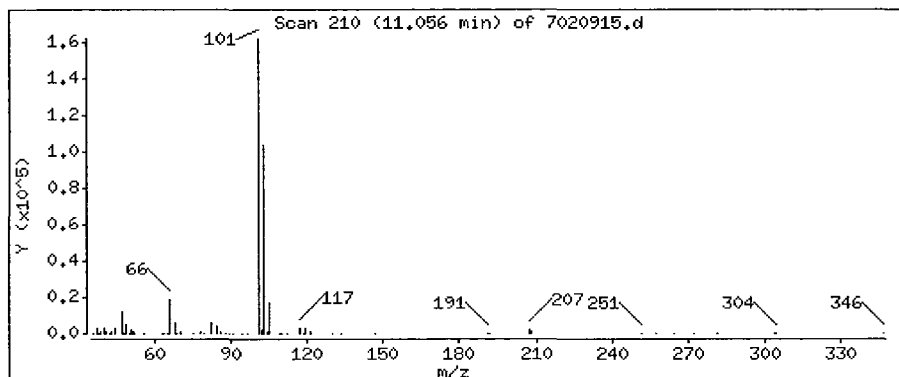
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 3.030 PPBV



0304

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

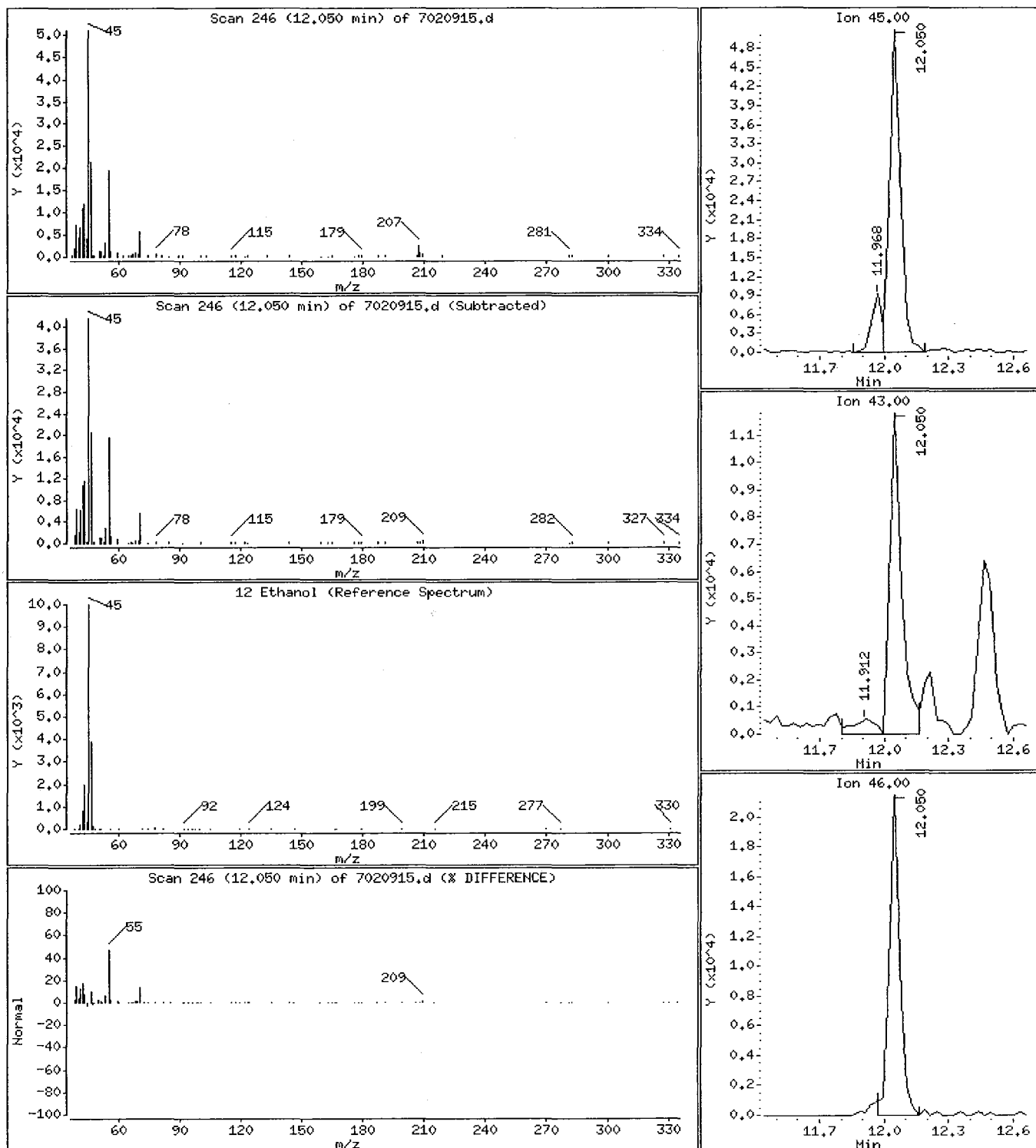
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

12 Ethanol

Concentration: 5,946 PPBV



0305

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

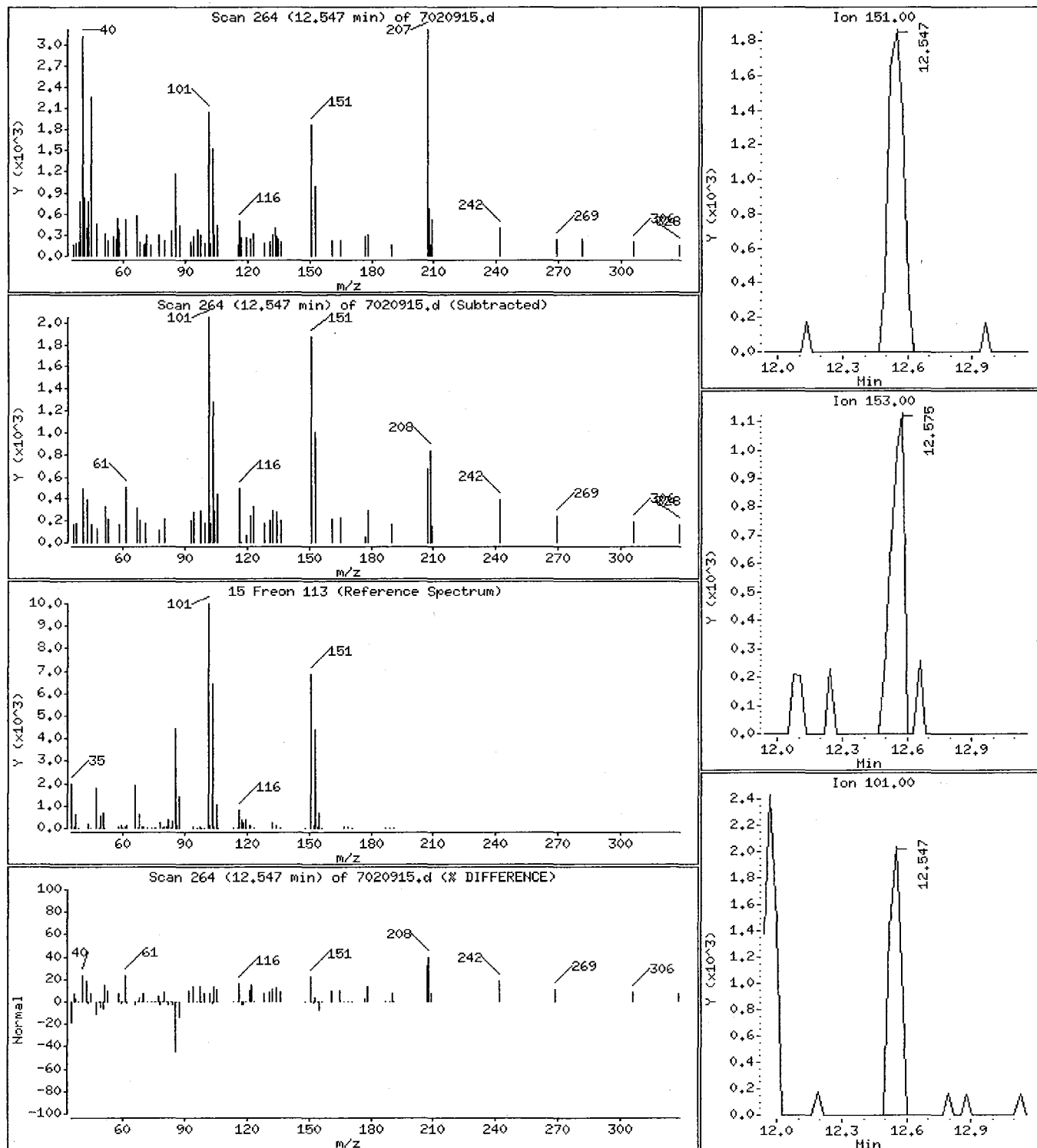
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

15 Freon 113

Concentration: 0.1034 PPBV



0306

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

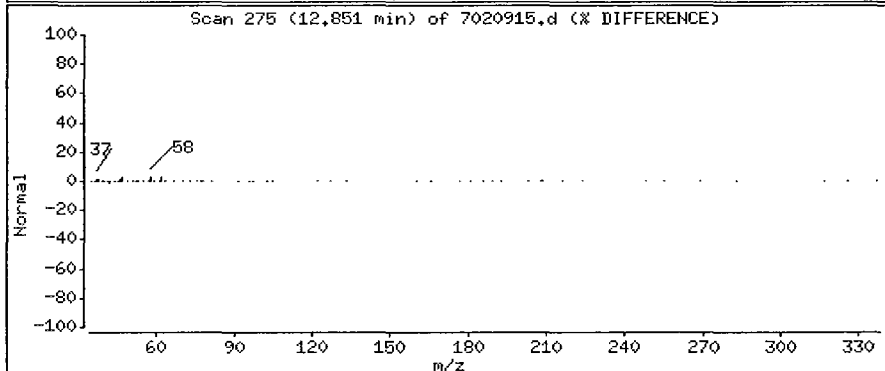
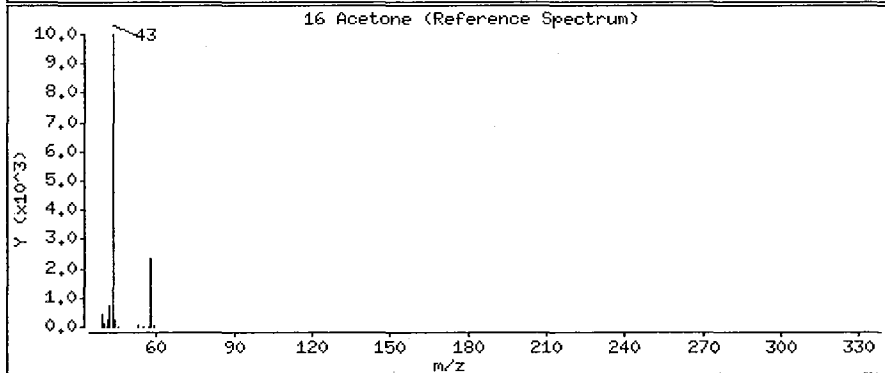
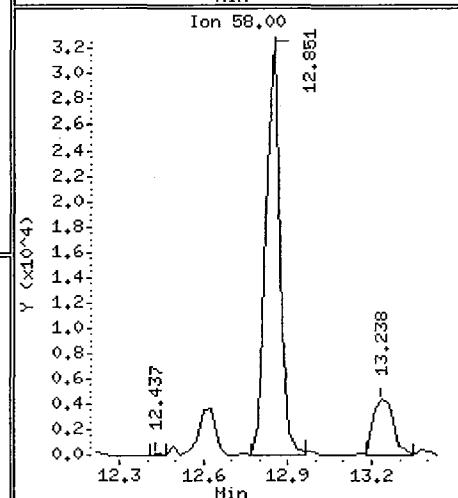
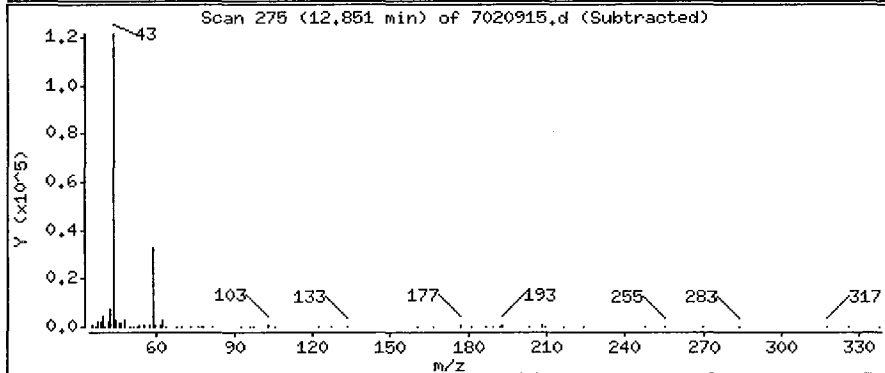
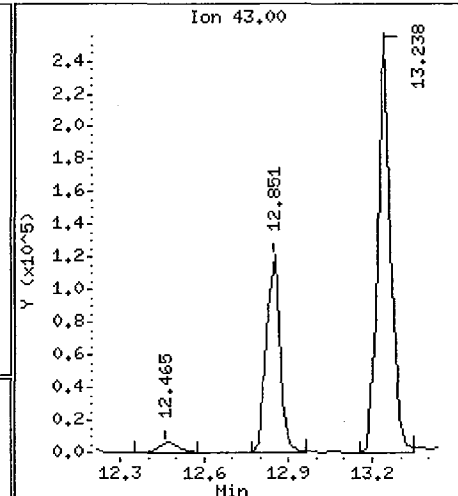
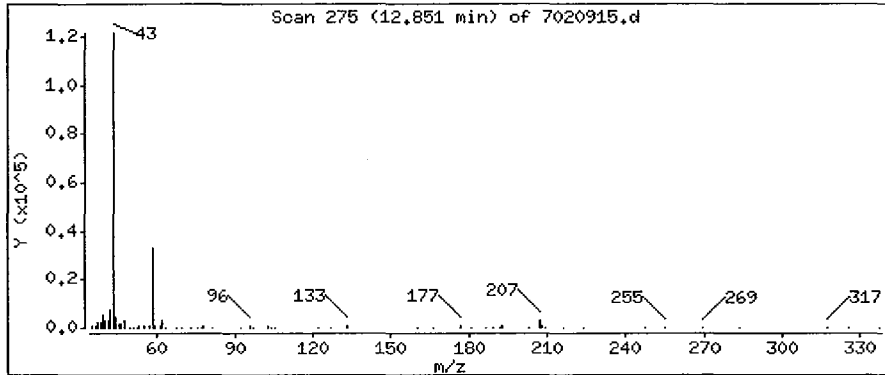
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 2,546 PPBV



0307

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

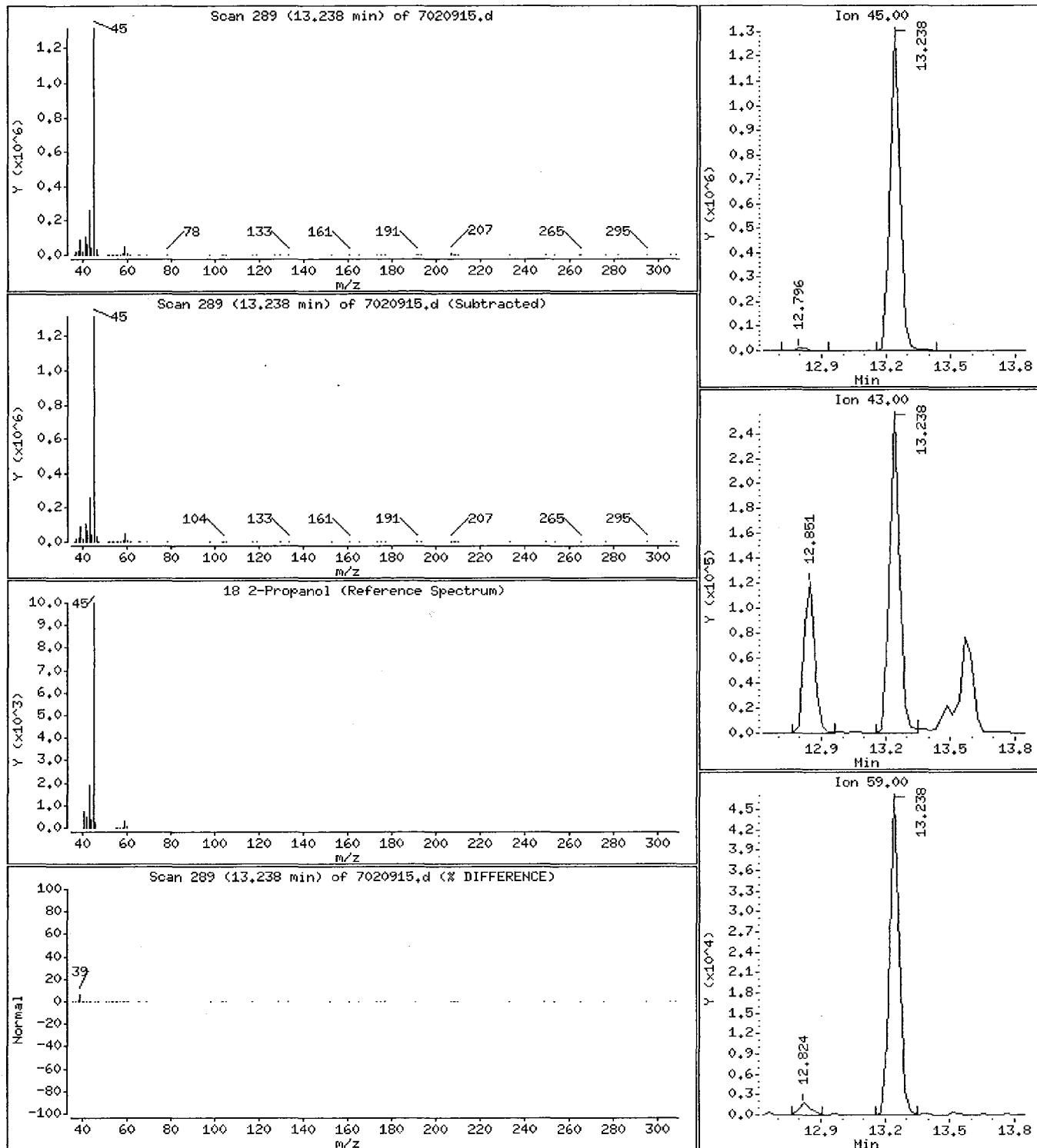
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 26.732 PPBV



0308

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

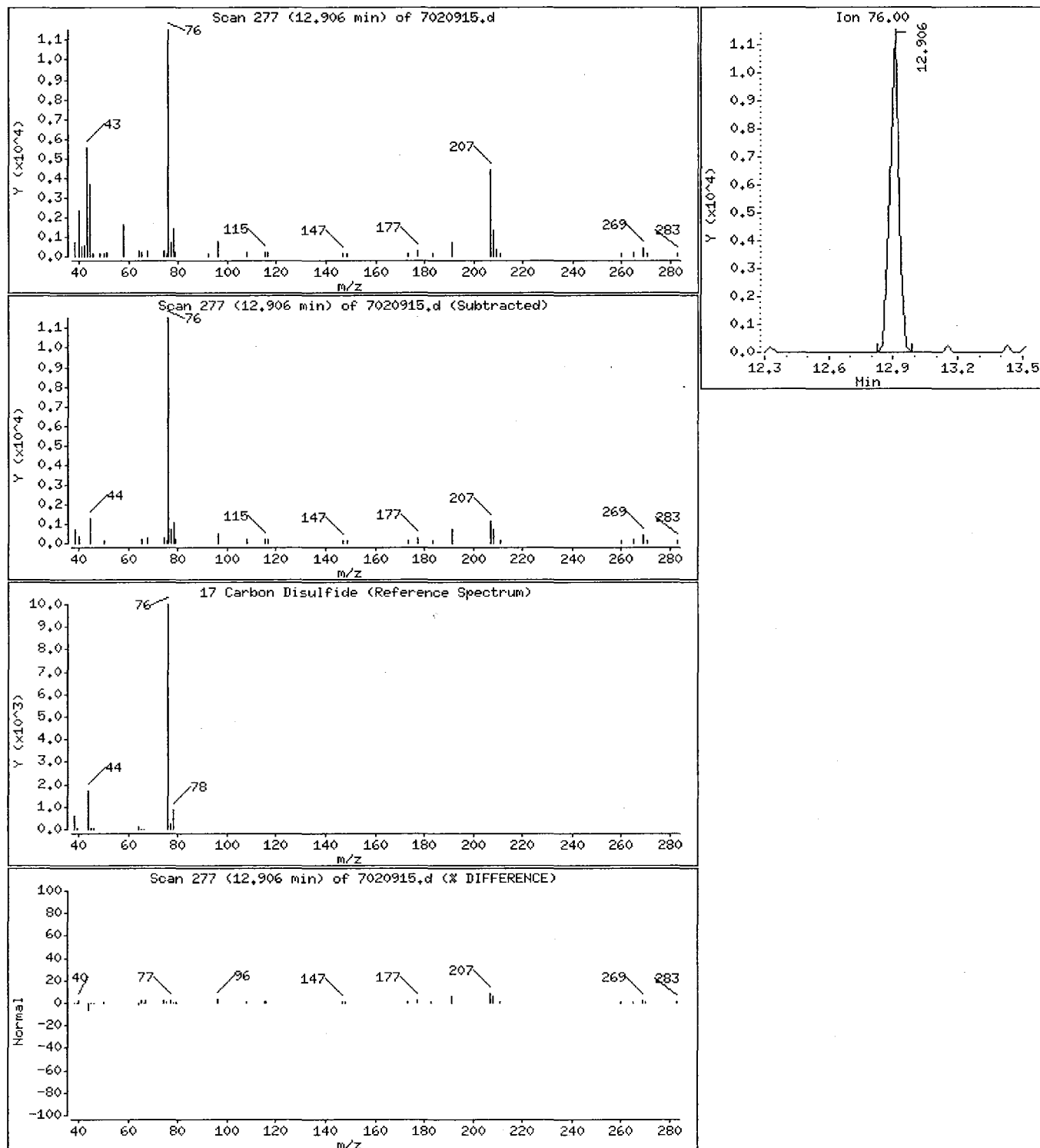
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.1604 PPBV



0309

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

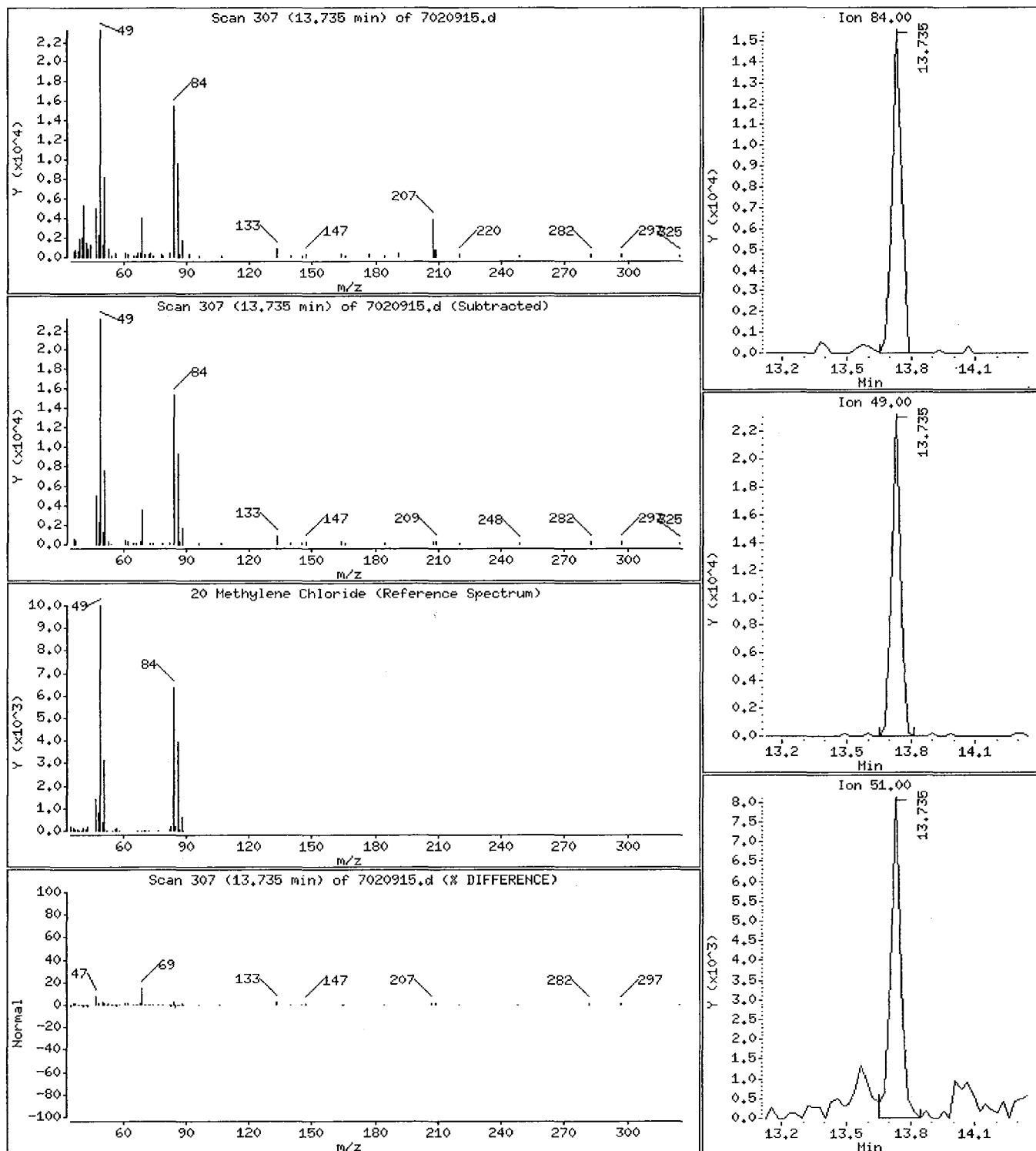
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.7235 PPBV



0310

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

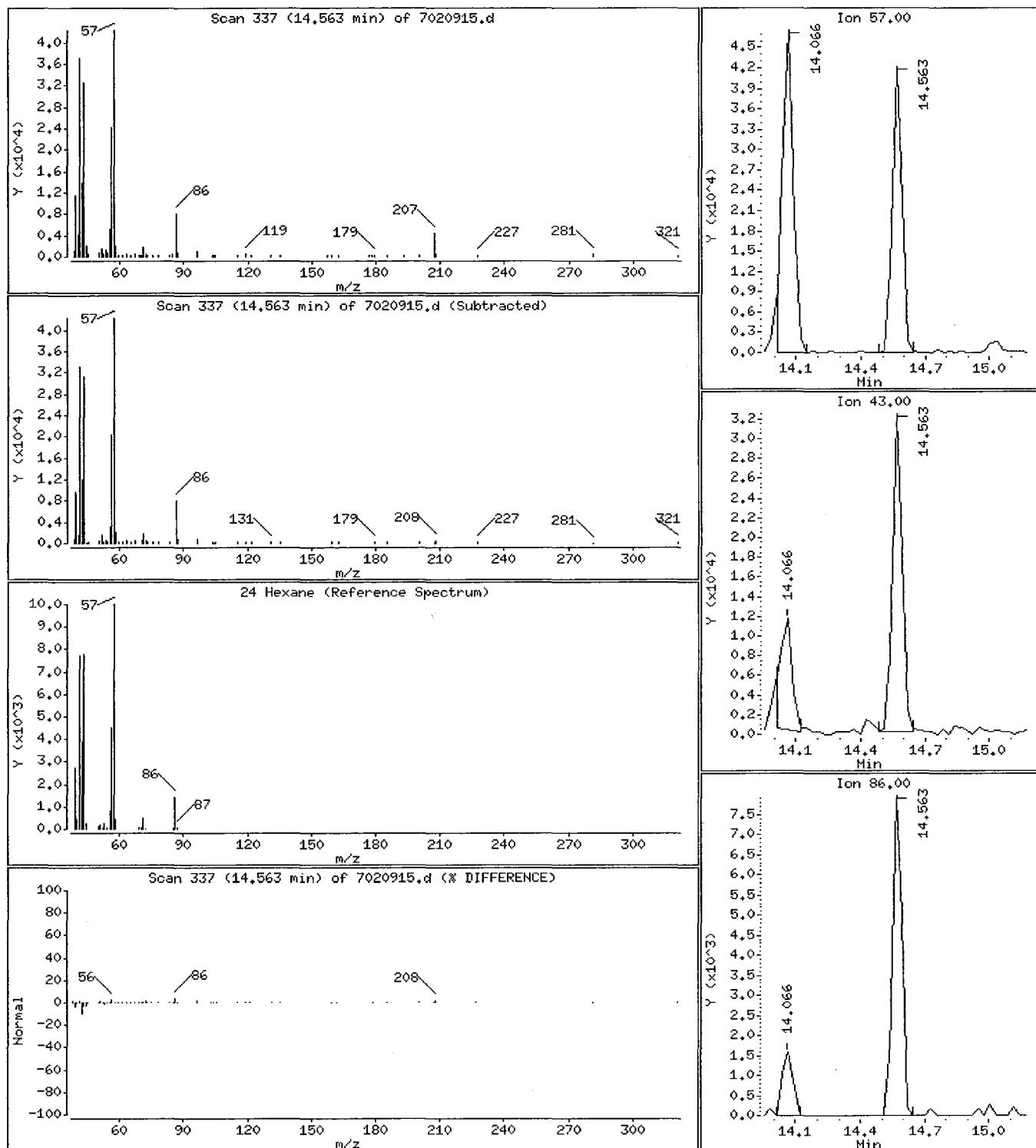
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 1.071 PPBV



0311

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

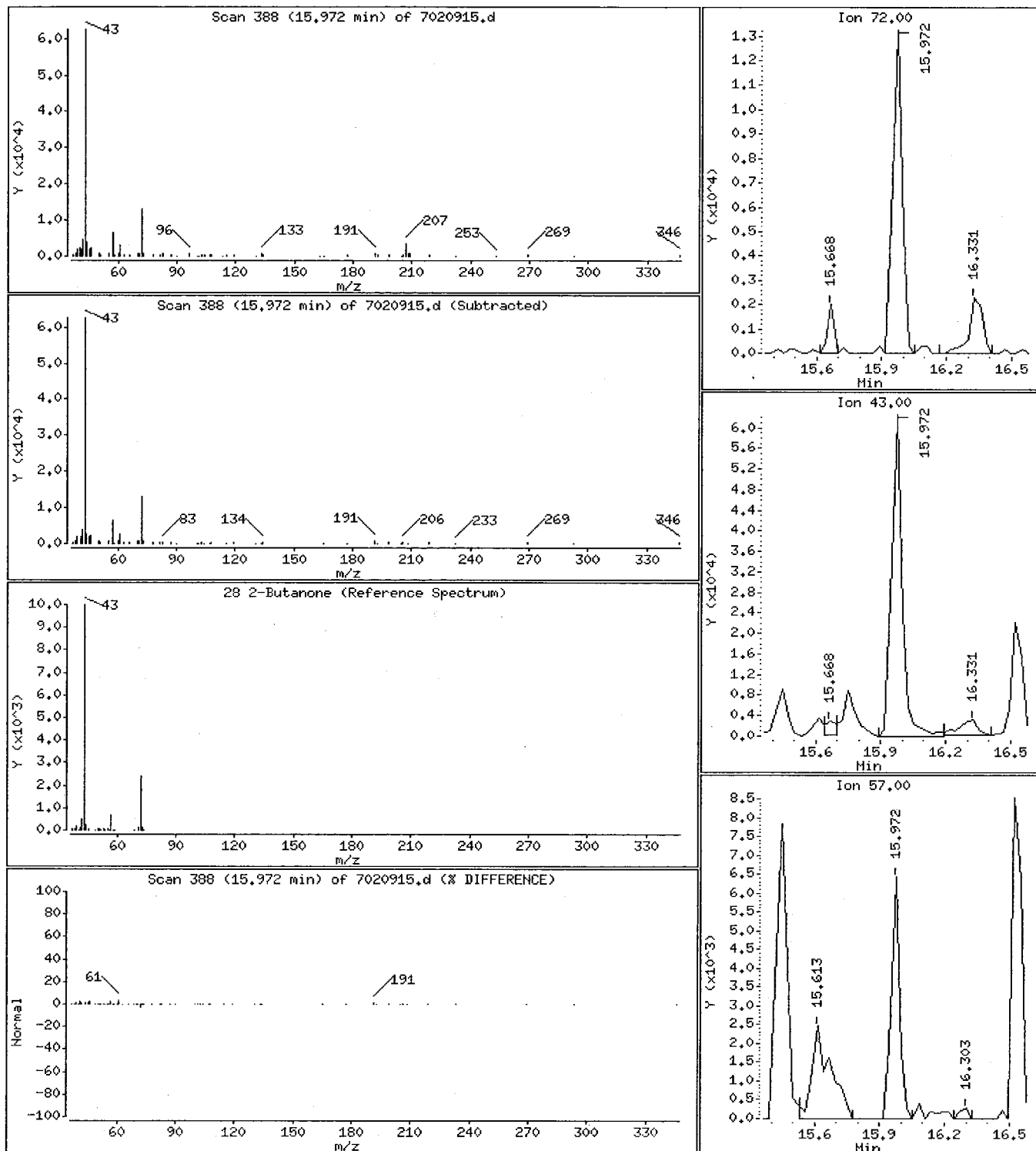
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1,178 PPBV



0312

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

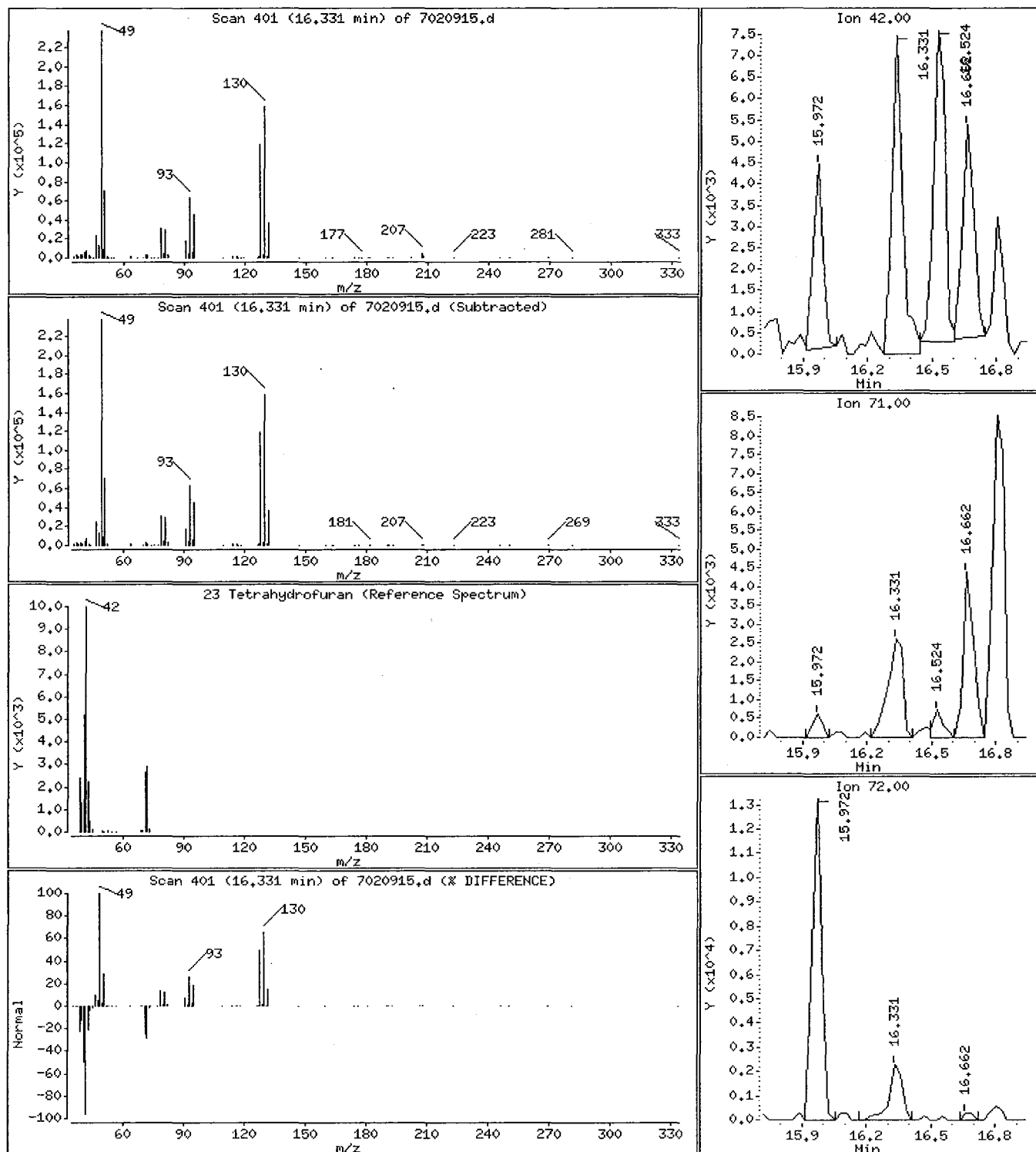
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.2741 PPBV



0313

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

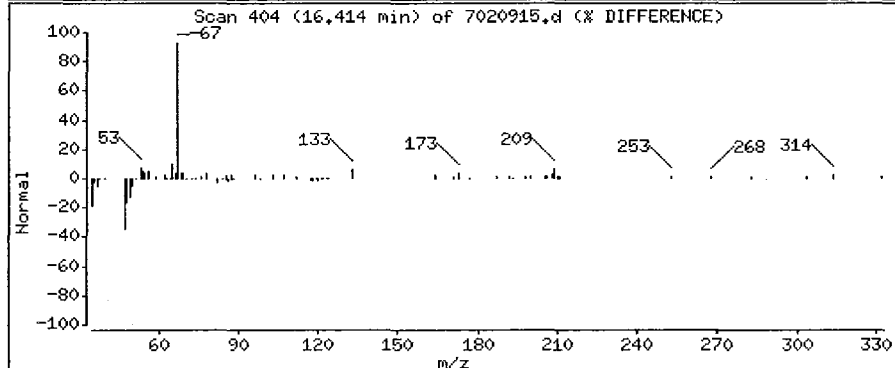
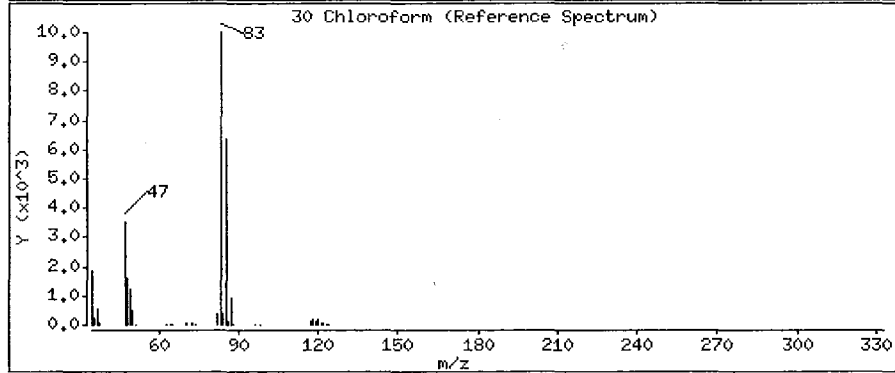
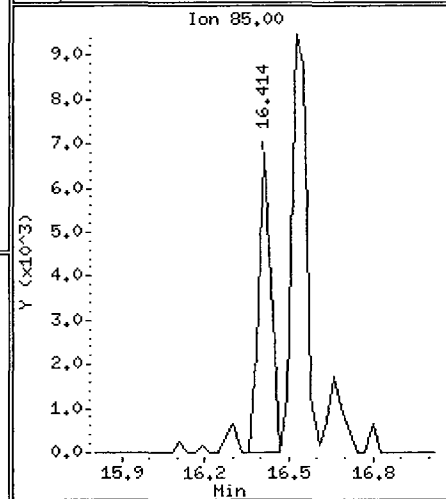
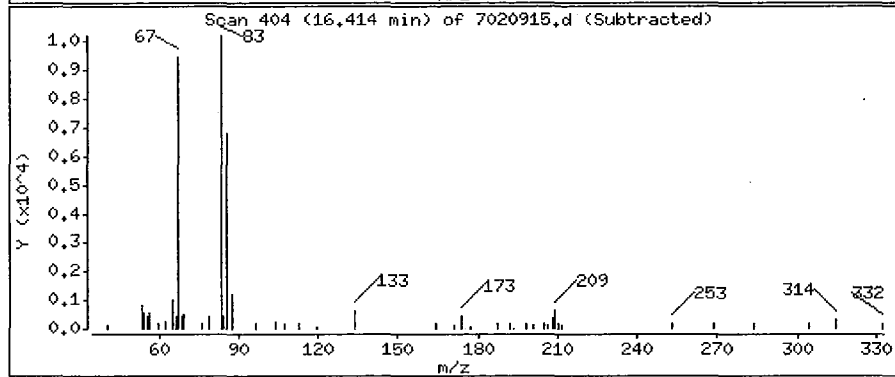
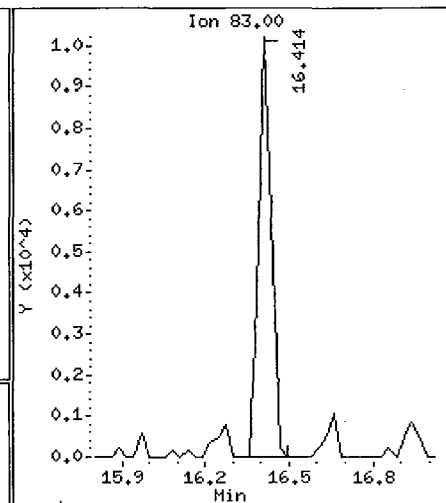
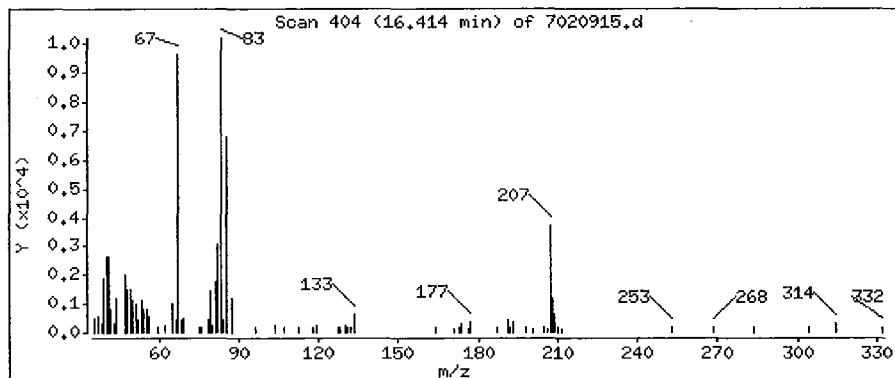
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.2114 PPBV



0314

Date: 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

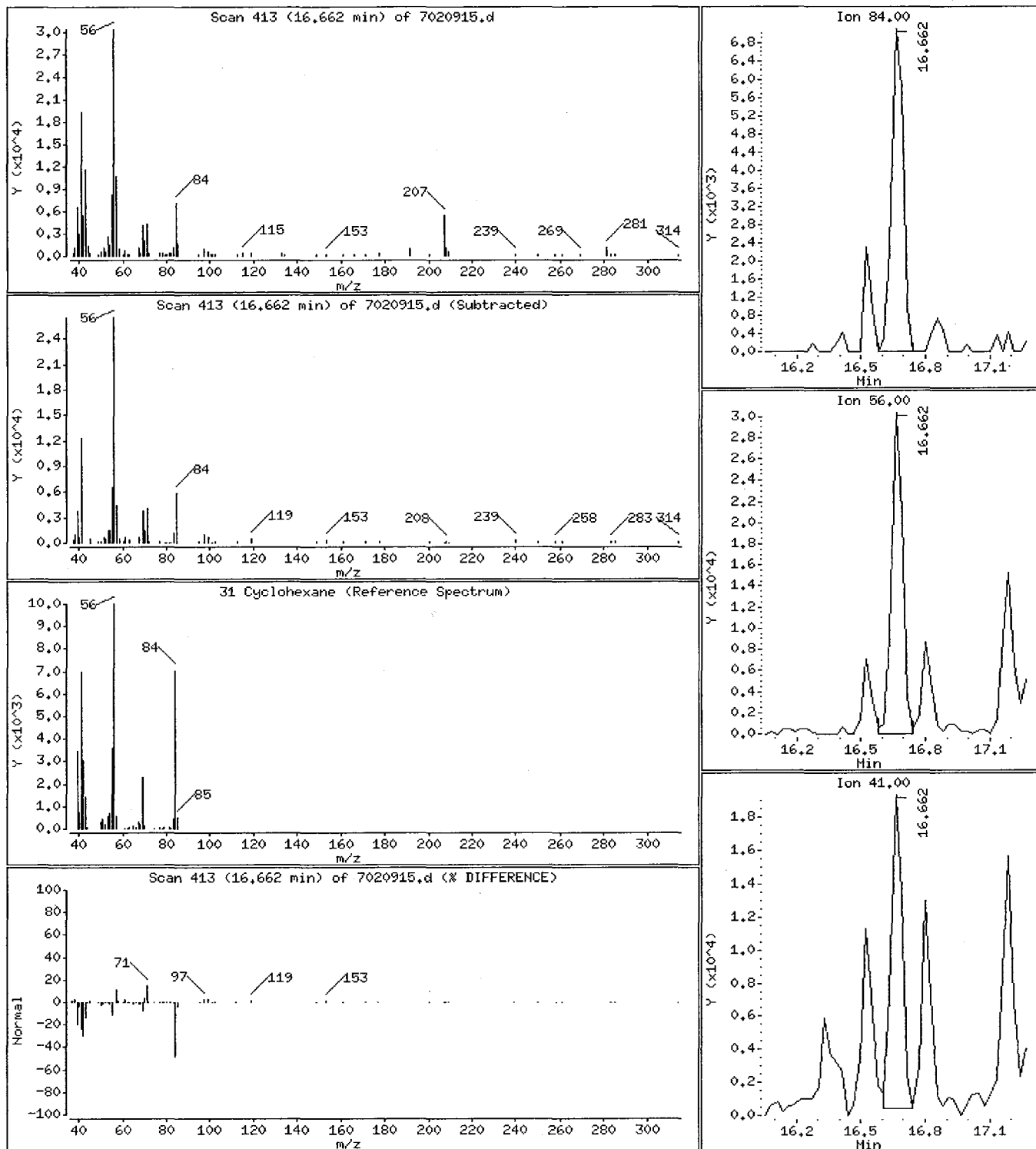
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.4009 PPBV



0315

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

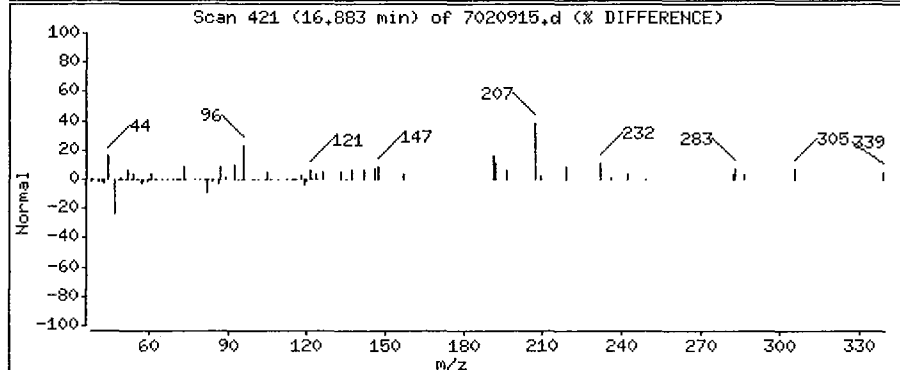
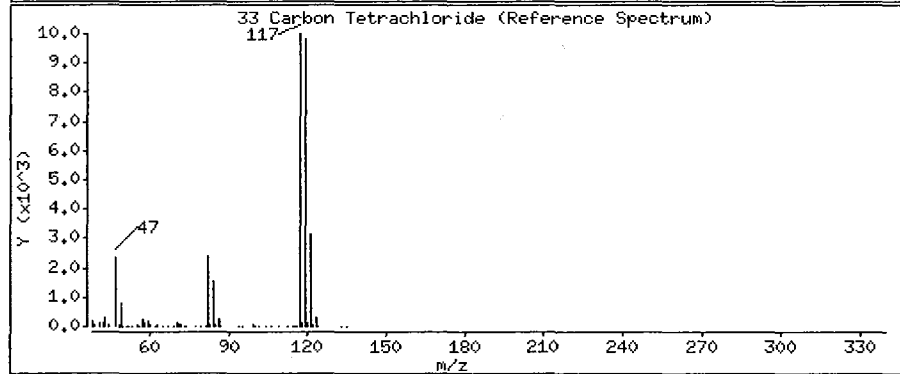
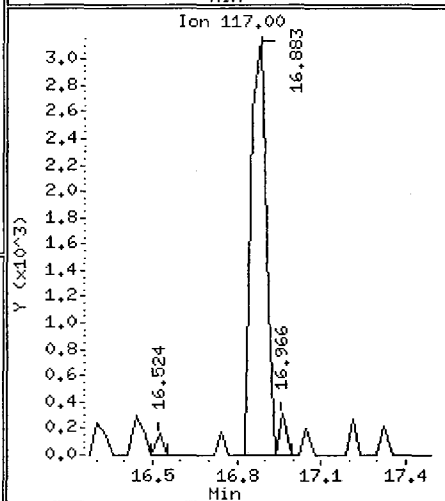
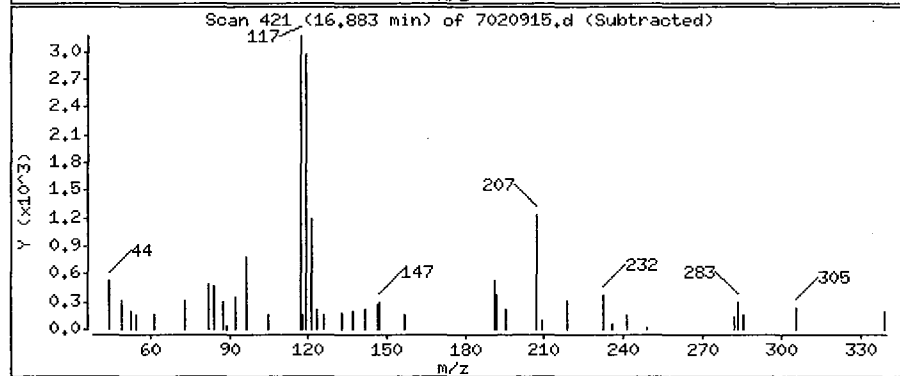
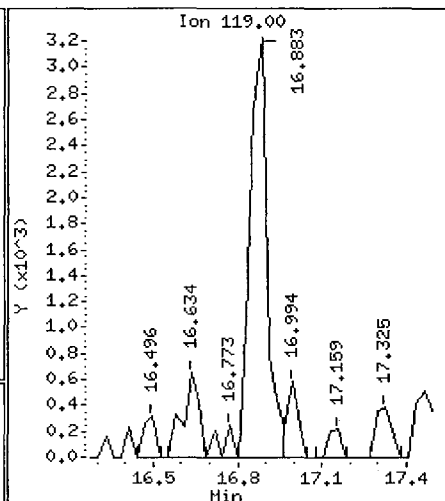
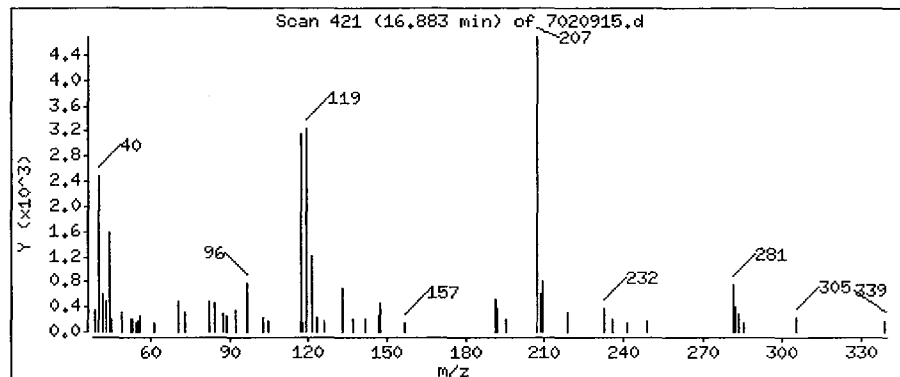
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1242 PPBV



0316

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

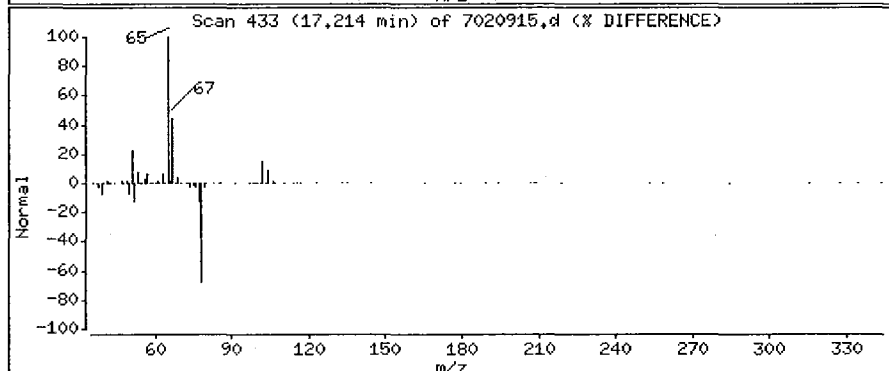
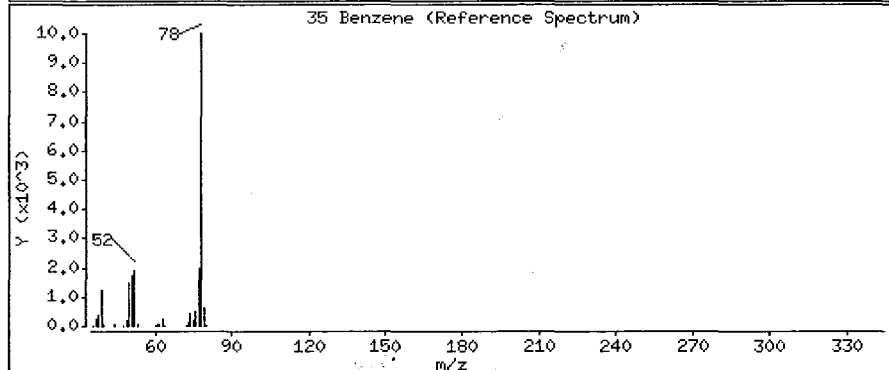
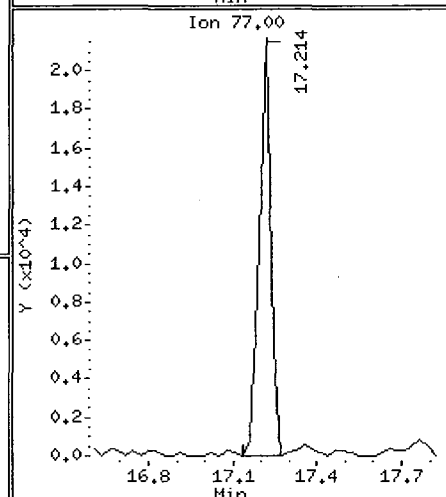
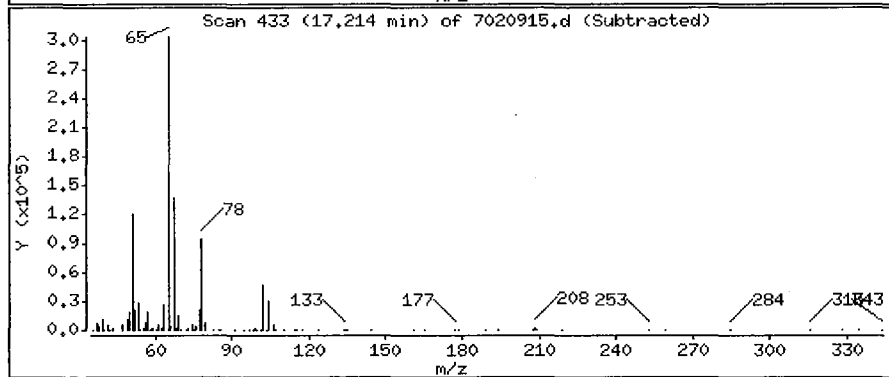
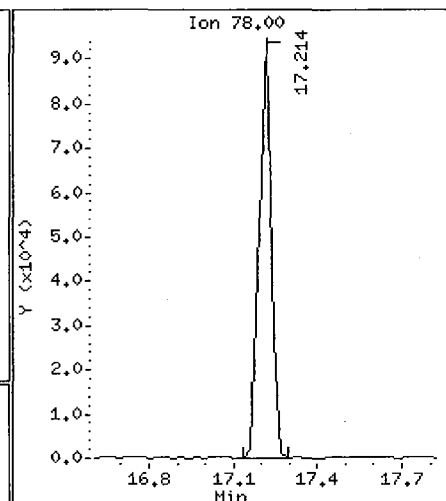
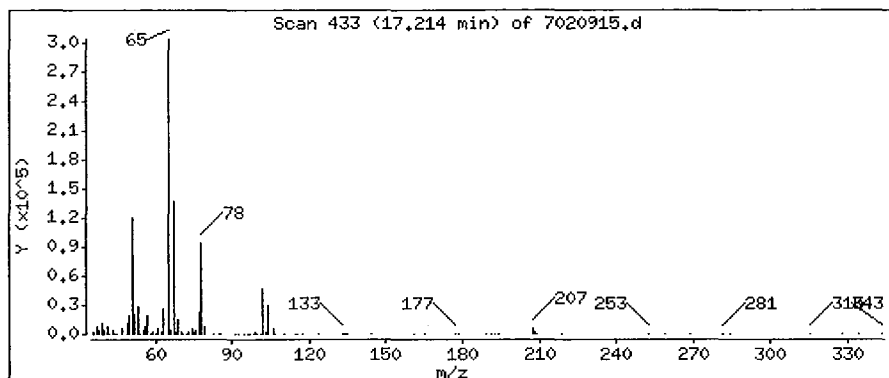
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1,347 PPBV



0317

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

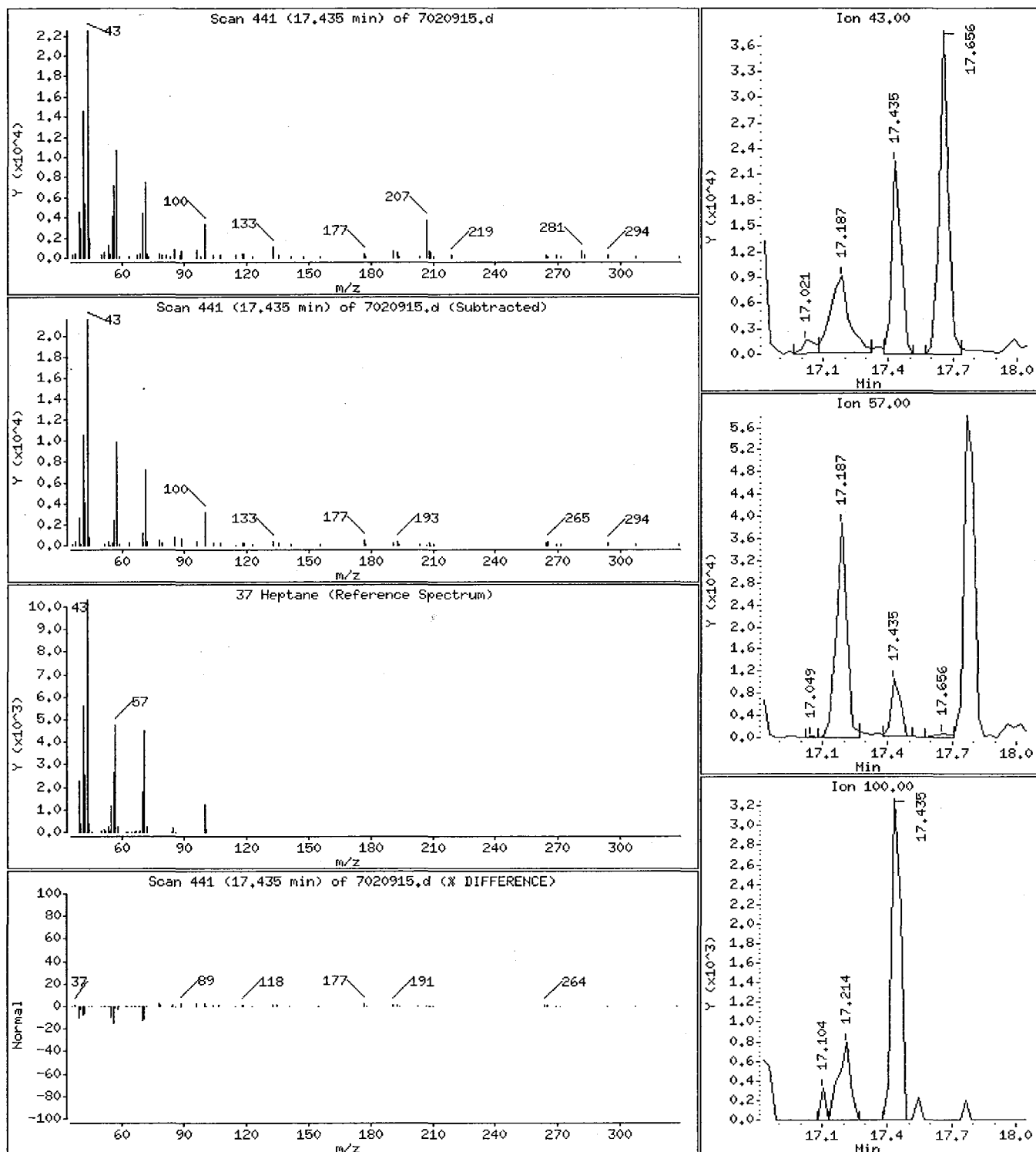
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.5516 PPBV



0318

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

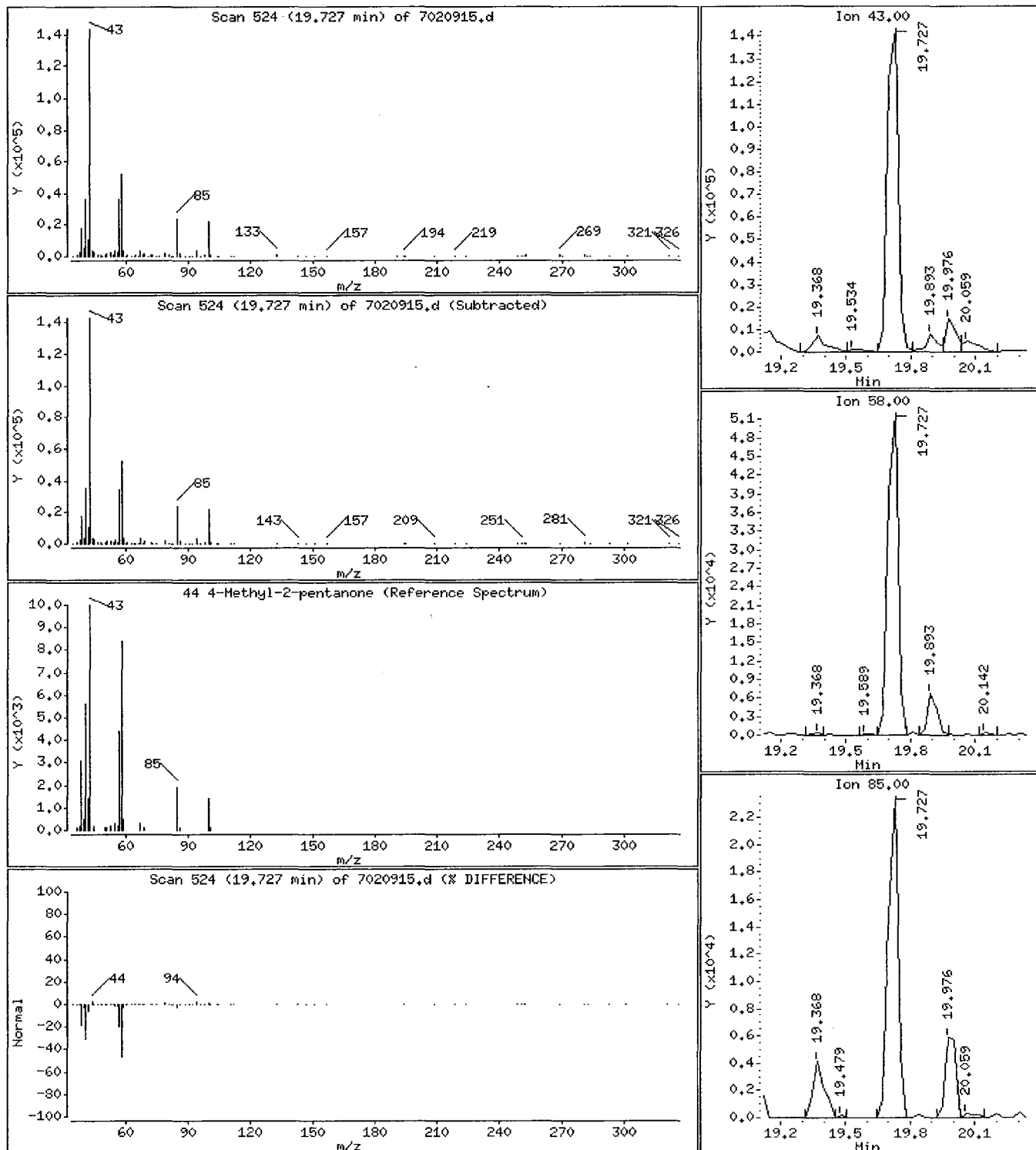
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 3.694 PPBV



0319

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

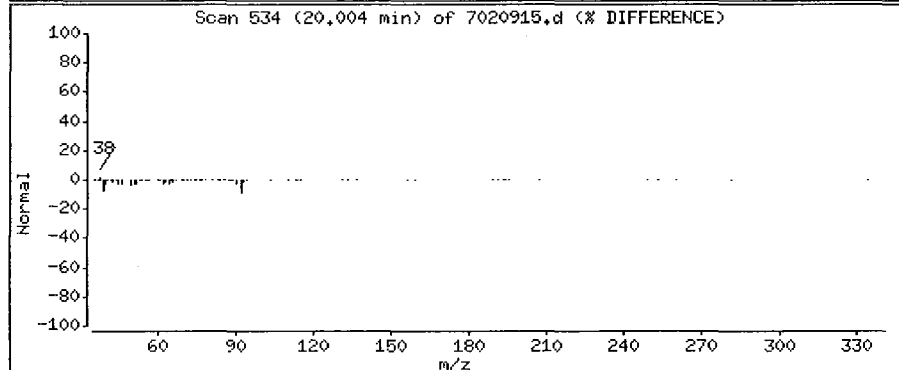
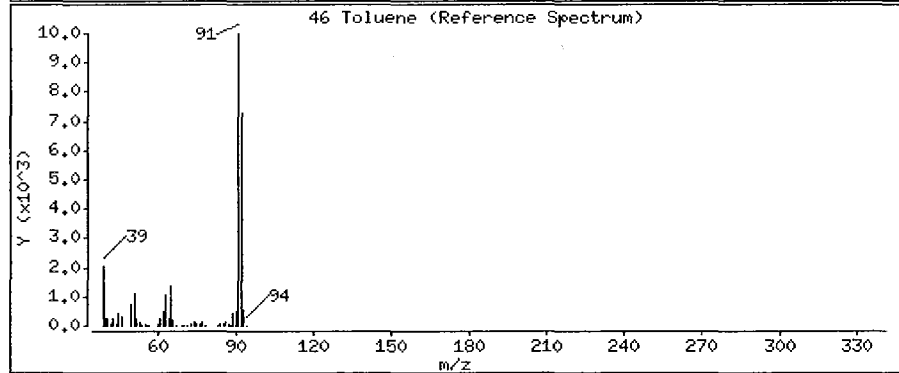
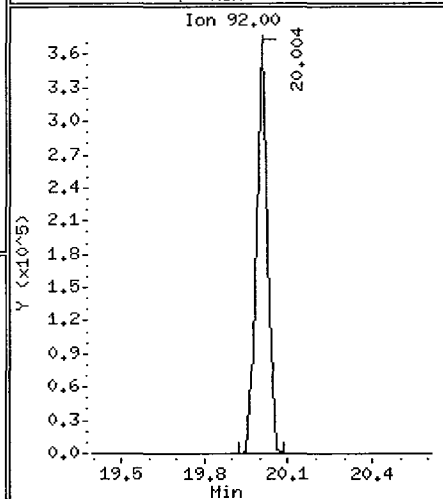
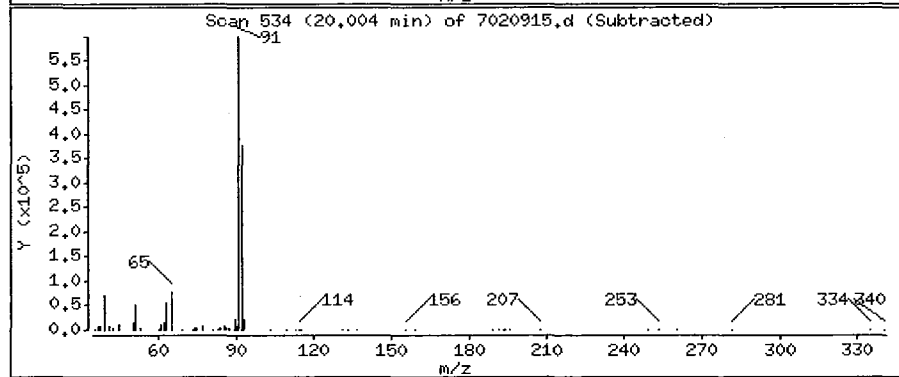
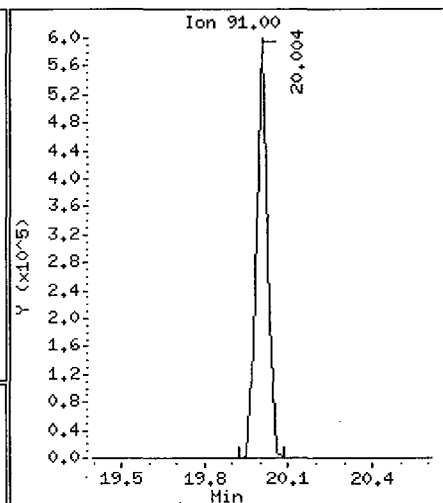
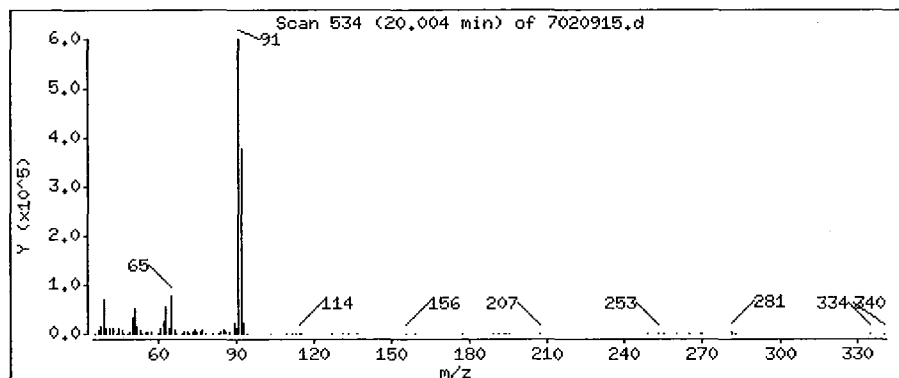
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 6,809 PPBV



0320

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

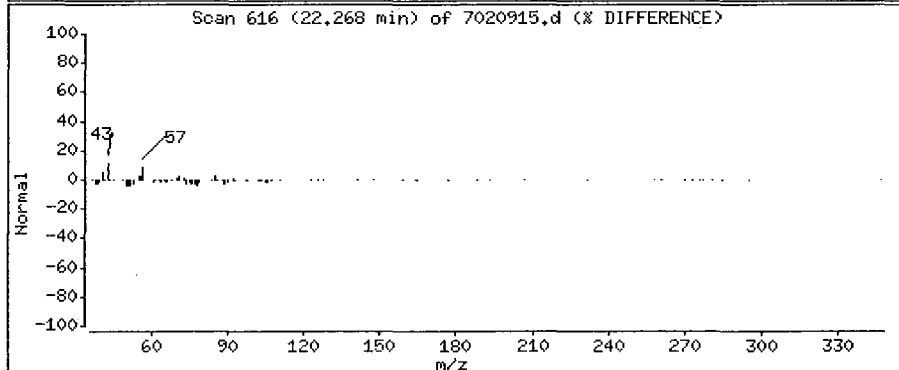
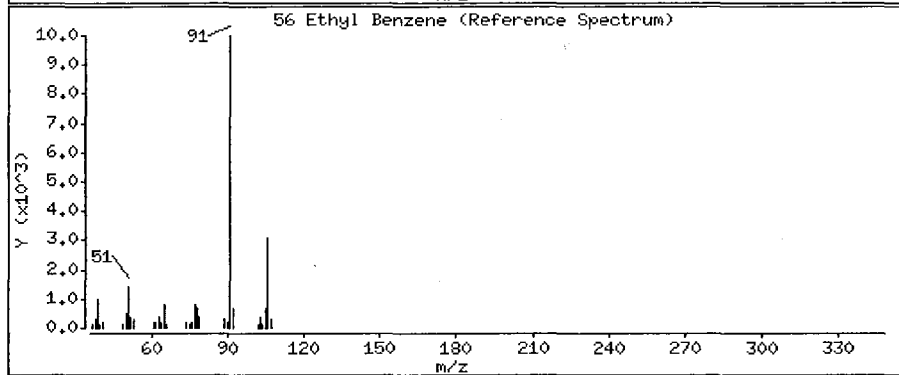
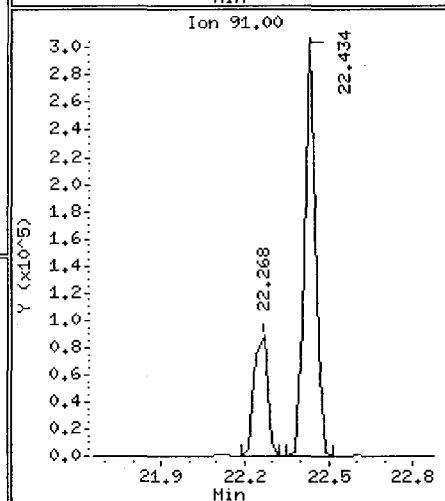
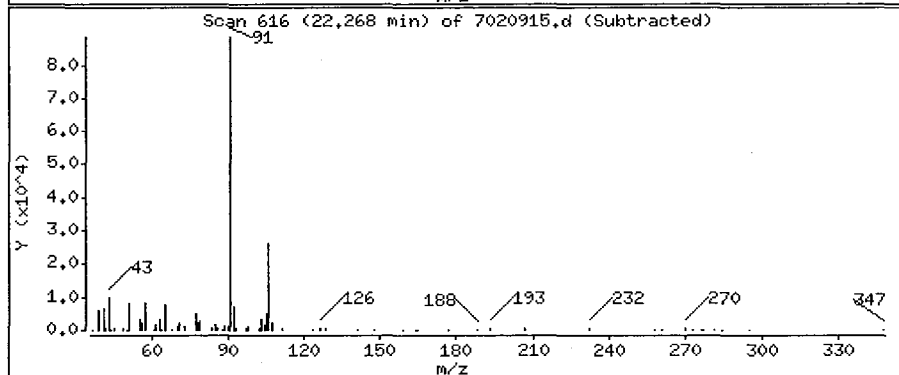
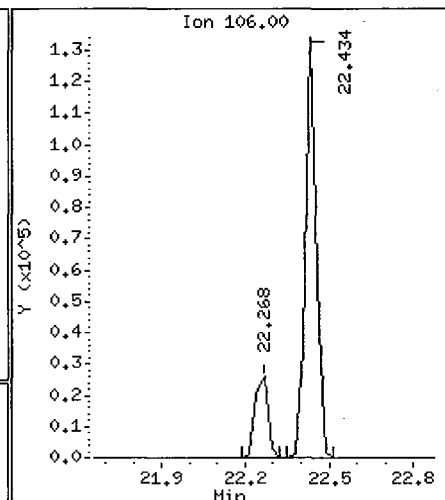
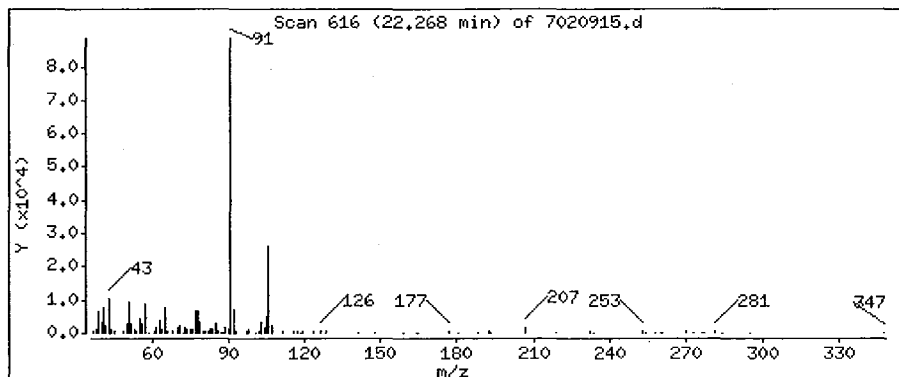
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 1.022 PPBV



0321

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

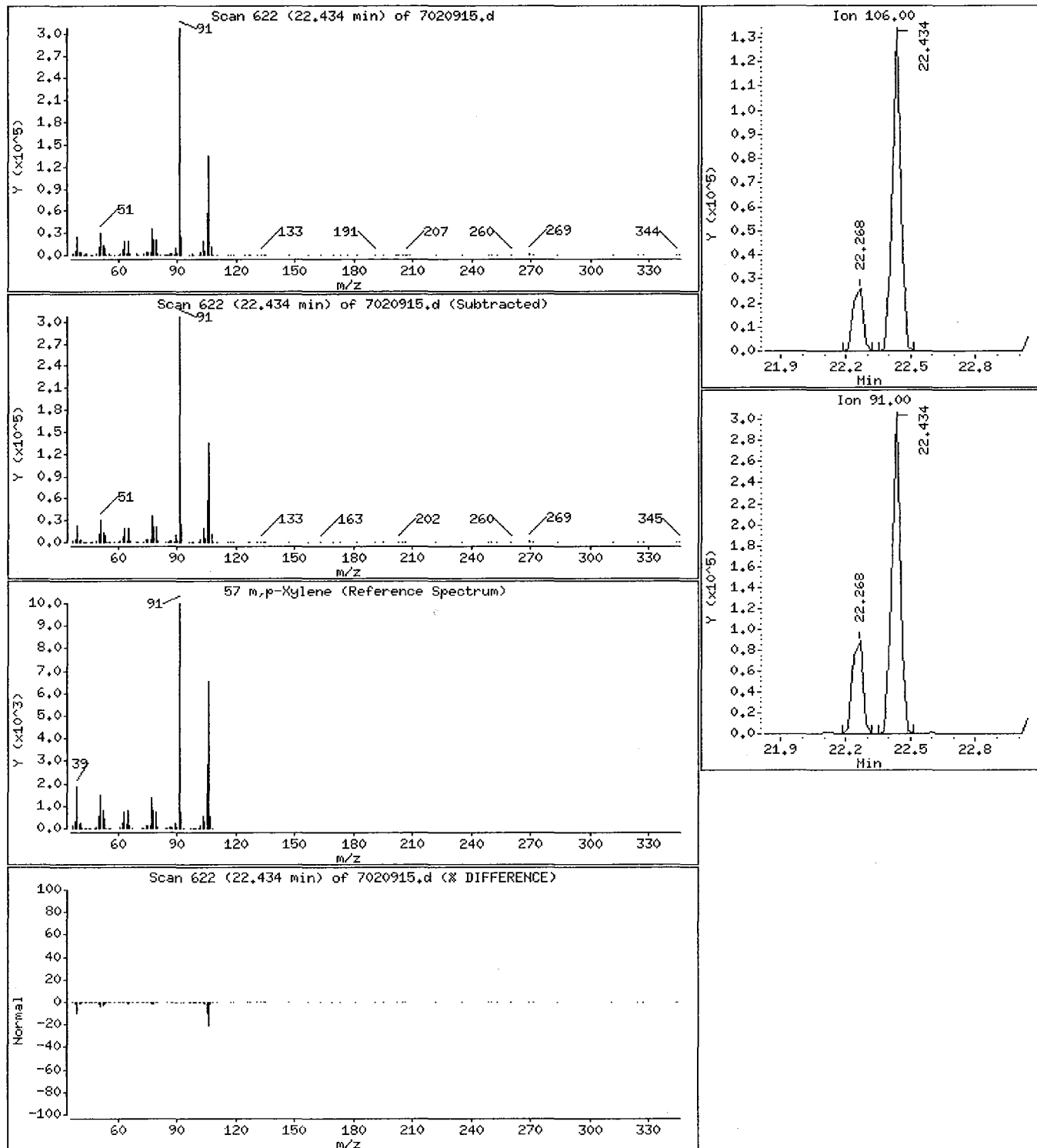
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 3,507 PPBV



0322

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

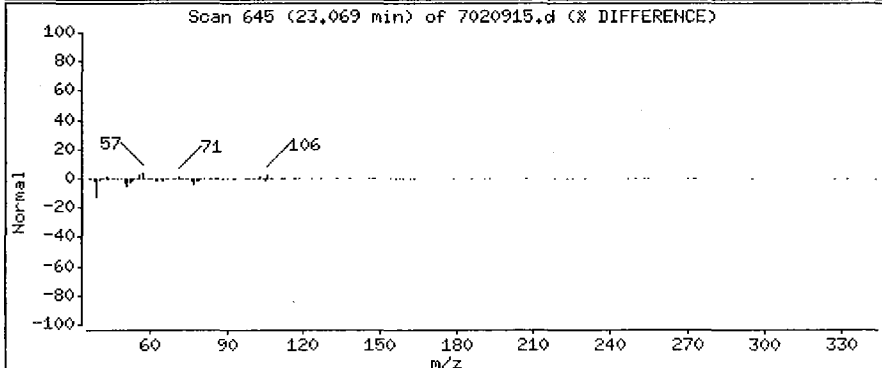
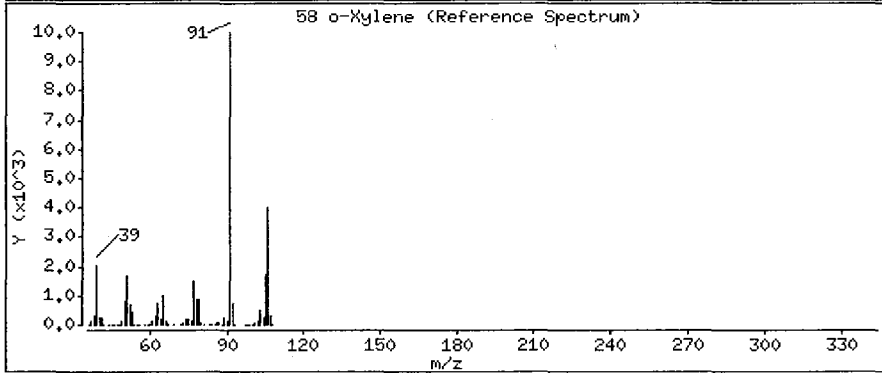
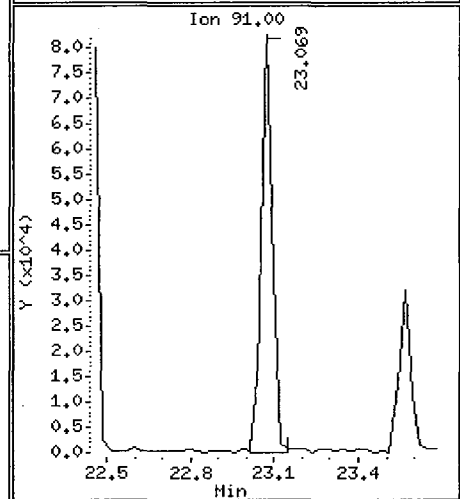
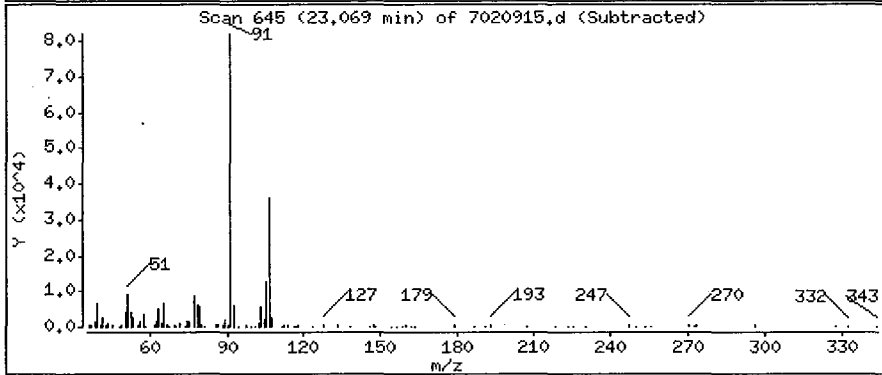
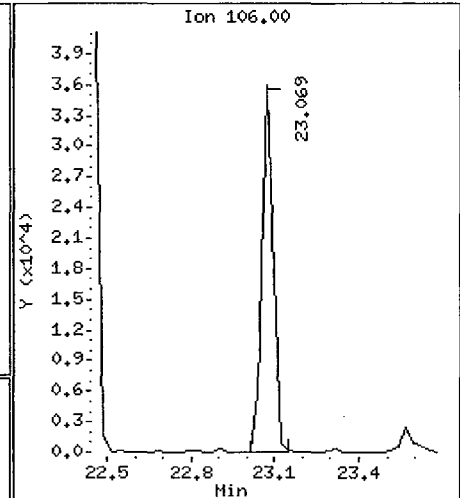
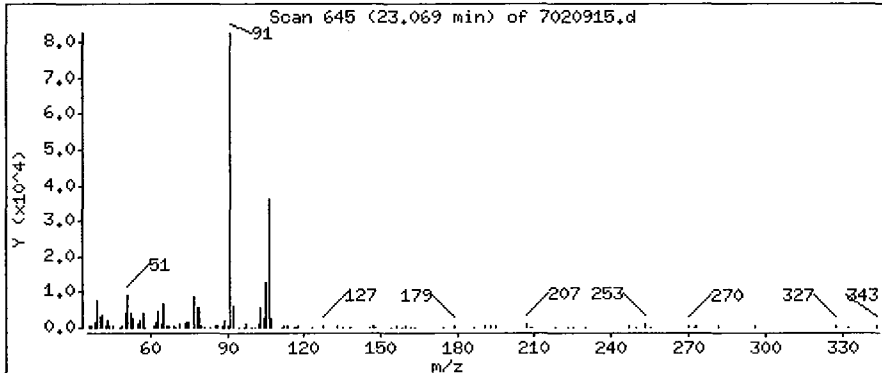
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 1.215 PPBV



0323

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

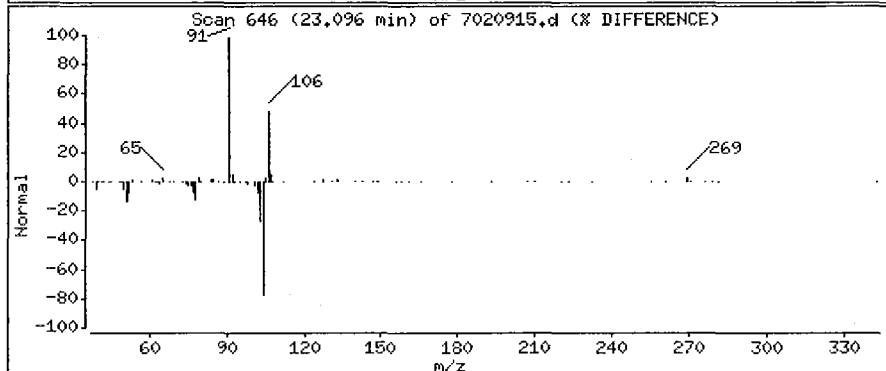
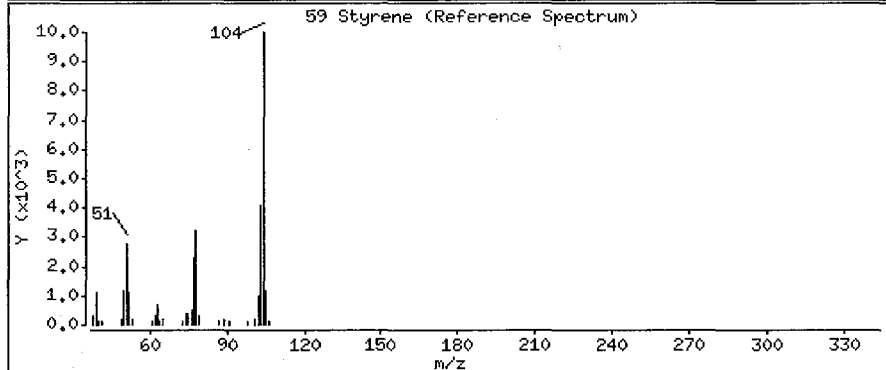
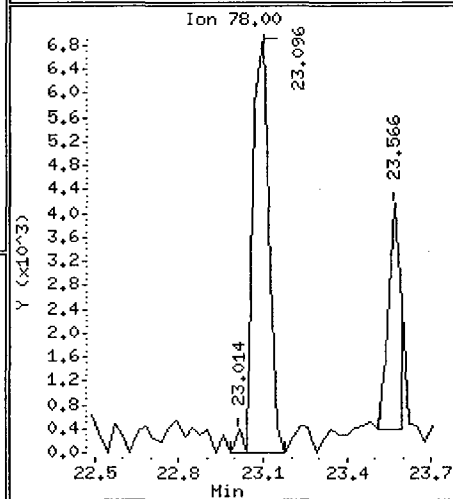
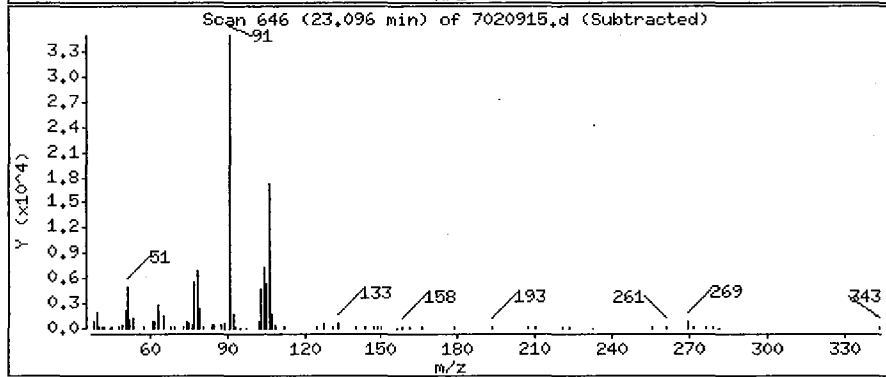
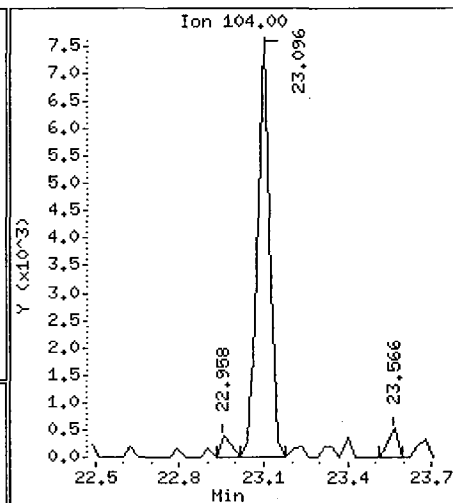
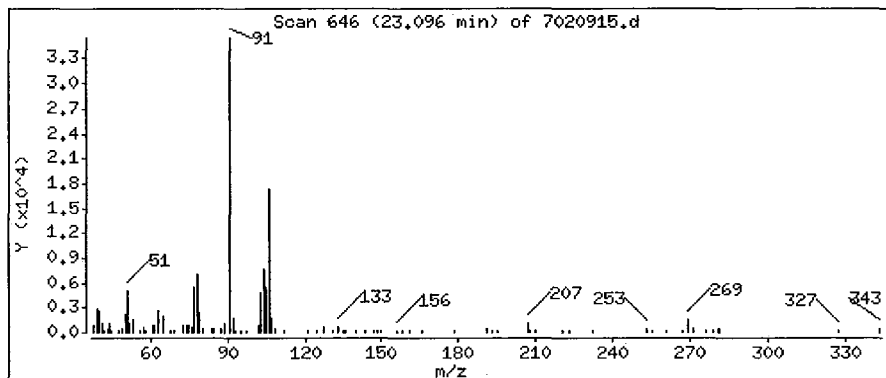
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1807 PPBV



0324

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

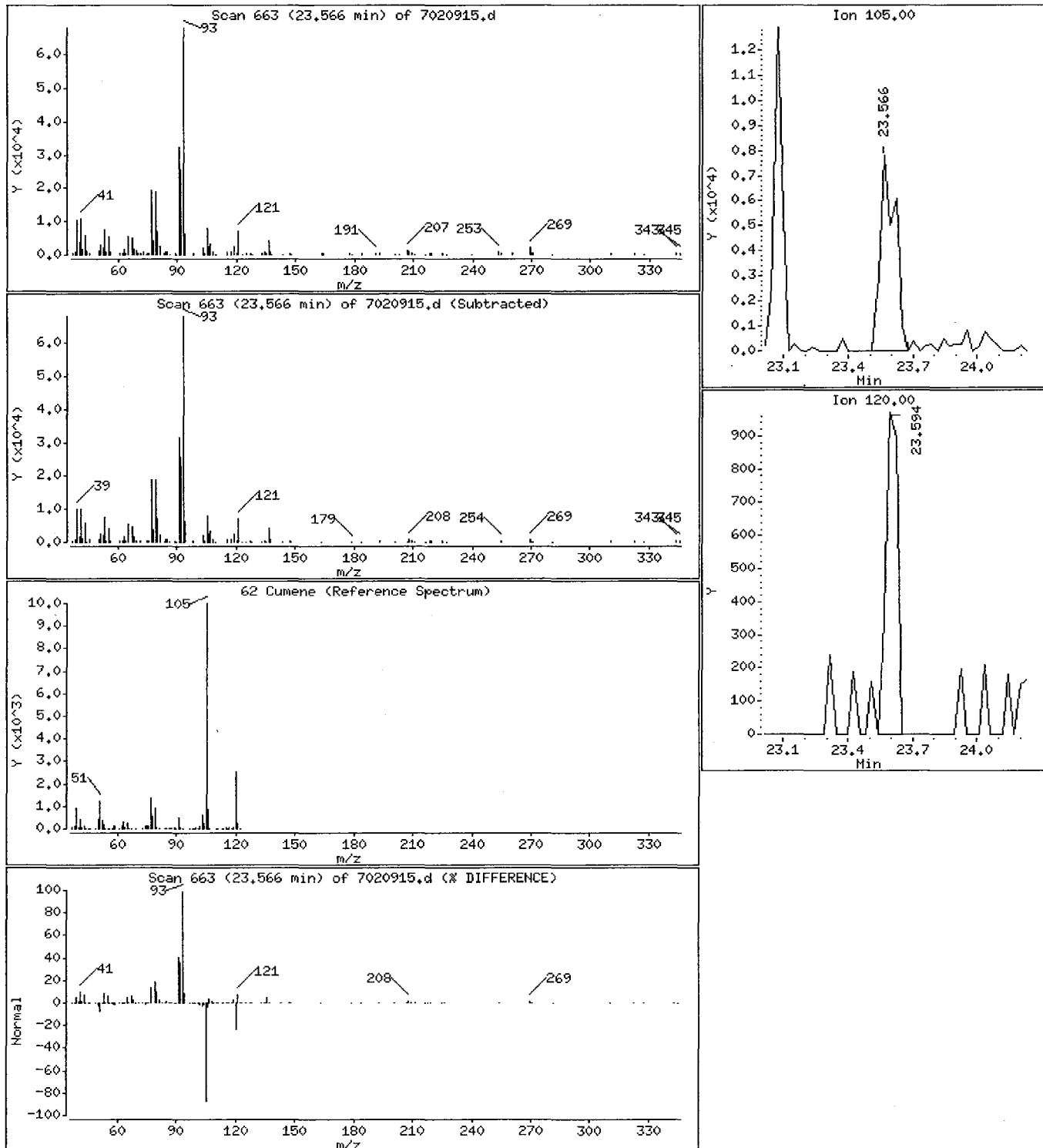
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.1910 PPBV



0325

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

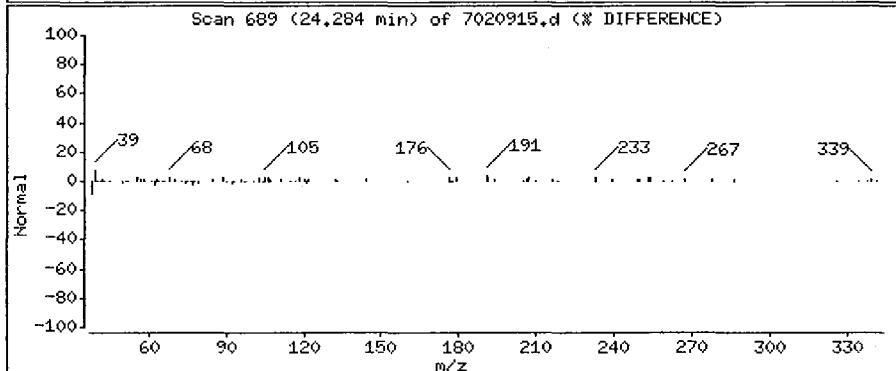
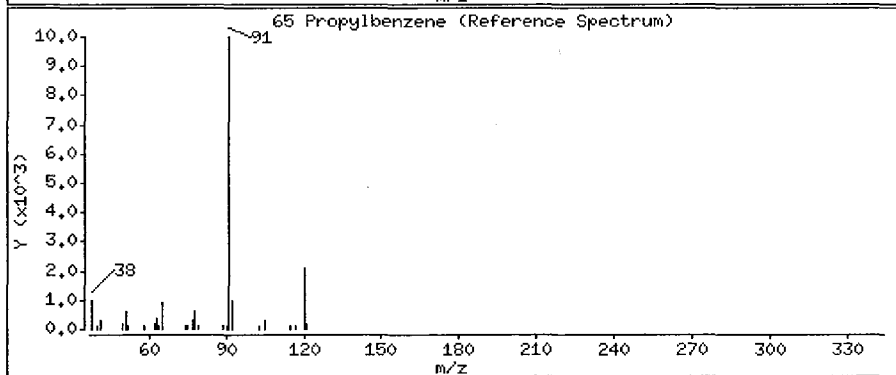
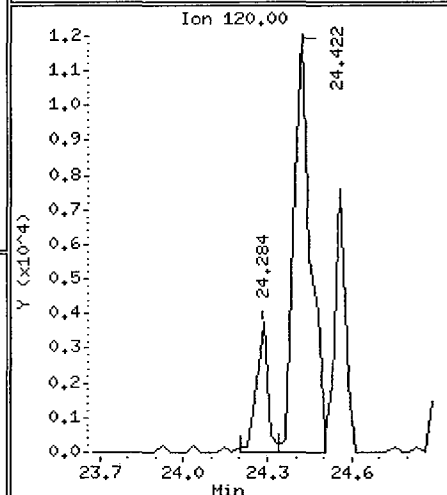
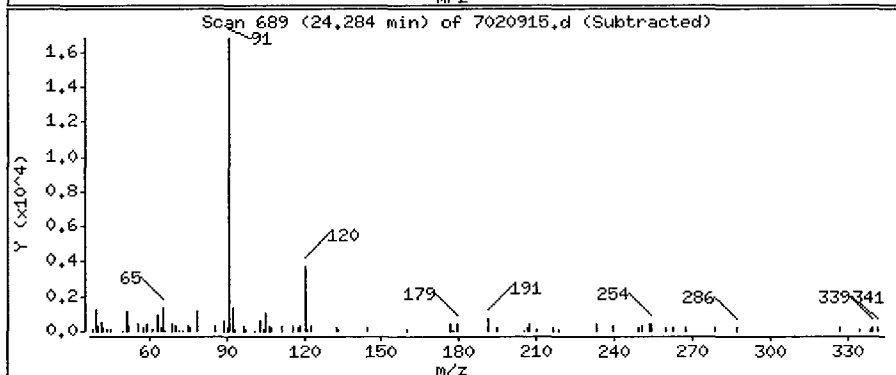
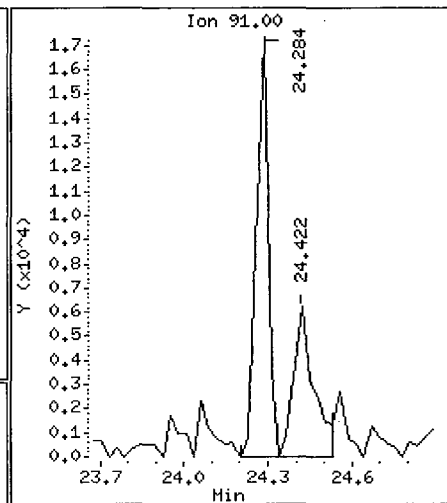
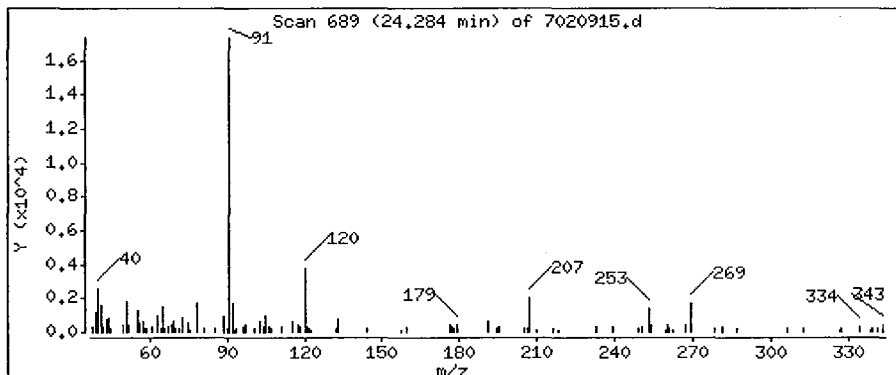
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1845 PPBV



0326

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.1

Sample Info: 500ml Can# 25275

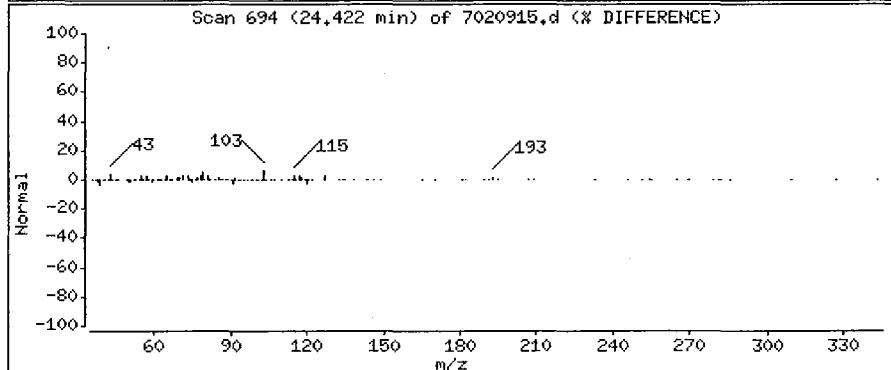
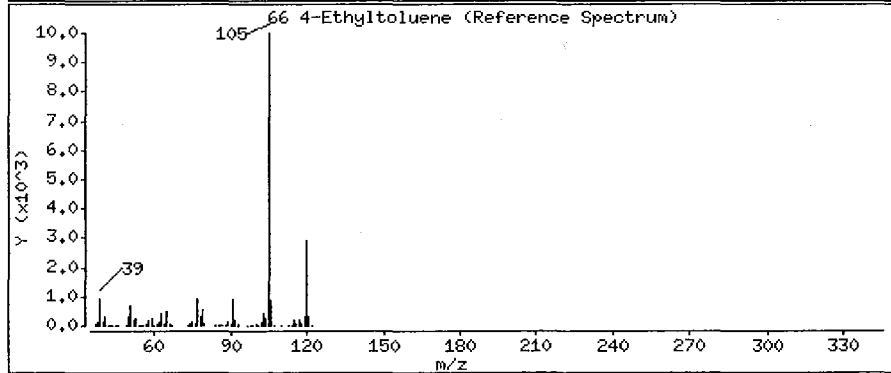
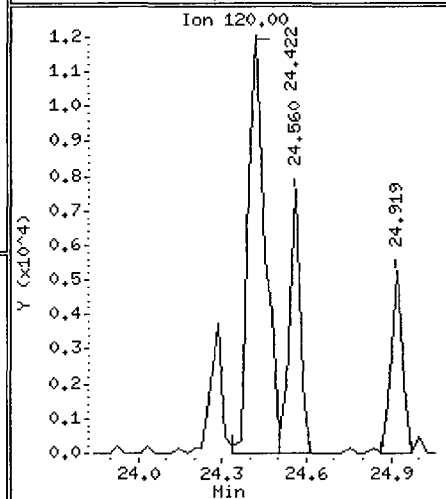
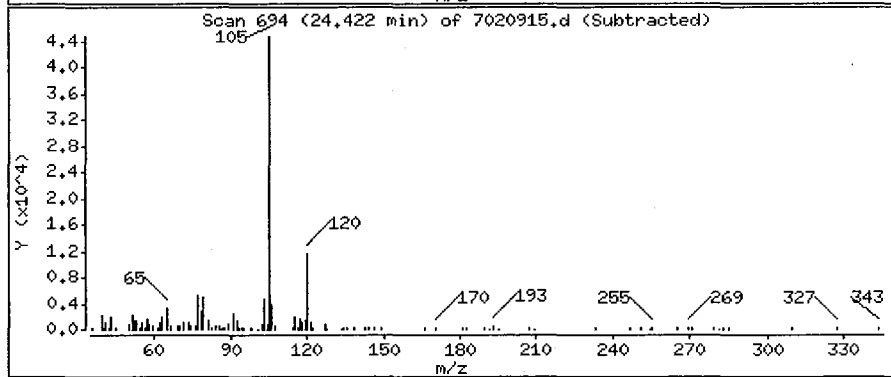
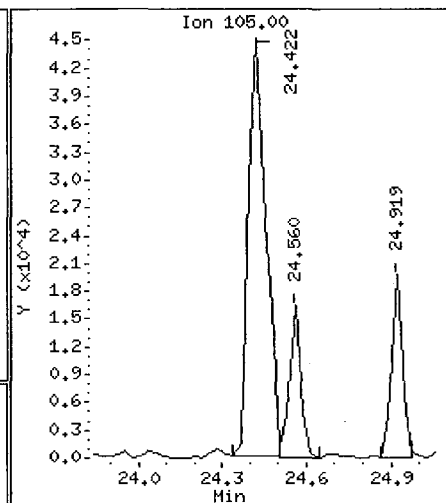
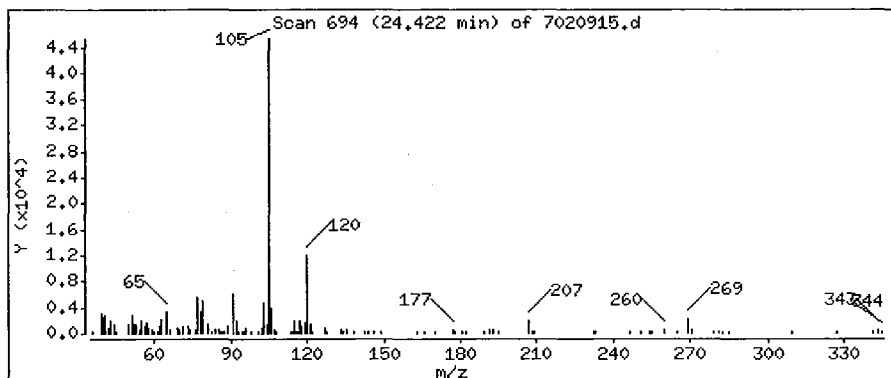
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.8942 PPBV



0327

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

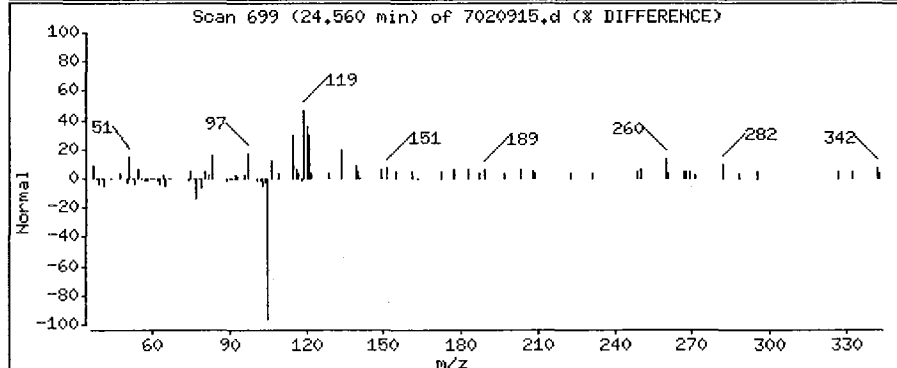
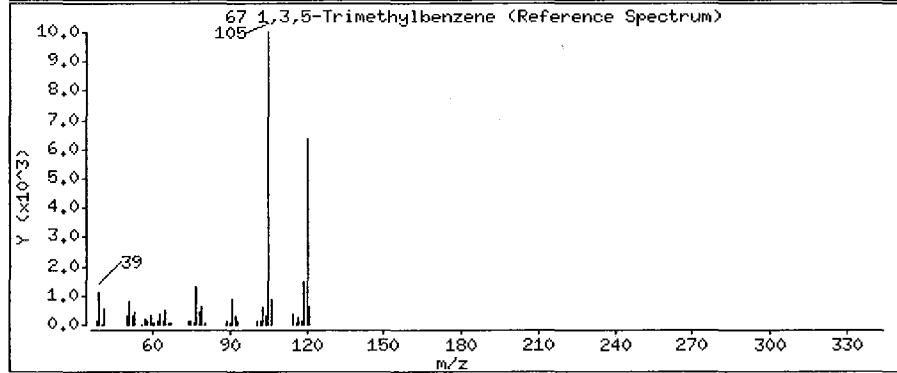
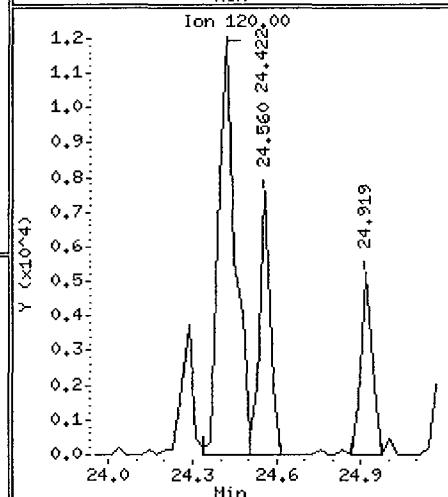
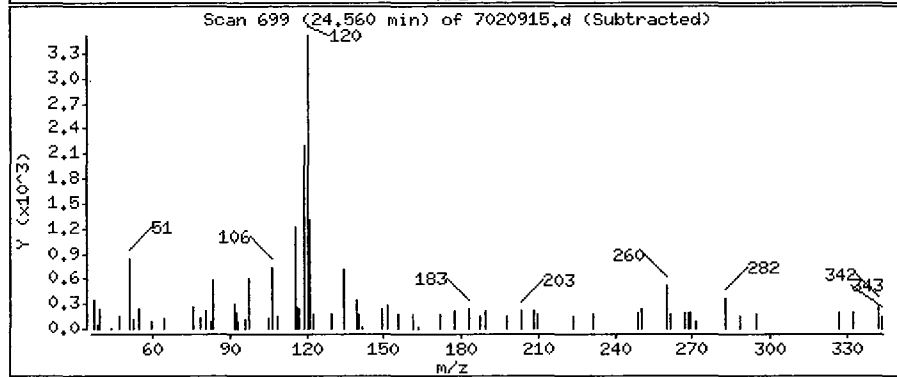
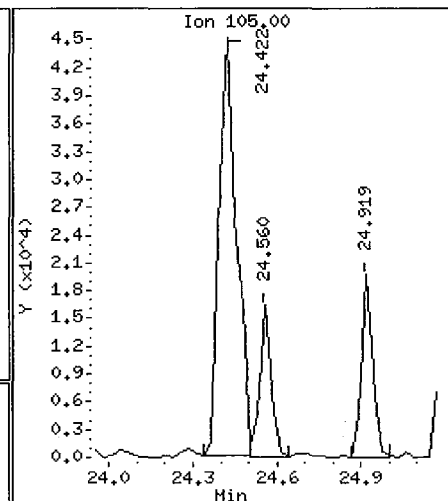
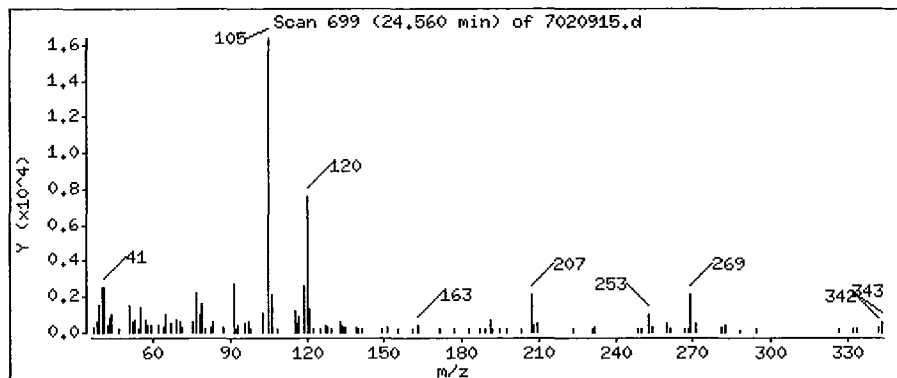
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2372 PPBV



0328

Date : 09-FEB-2005 16:59

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

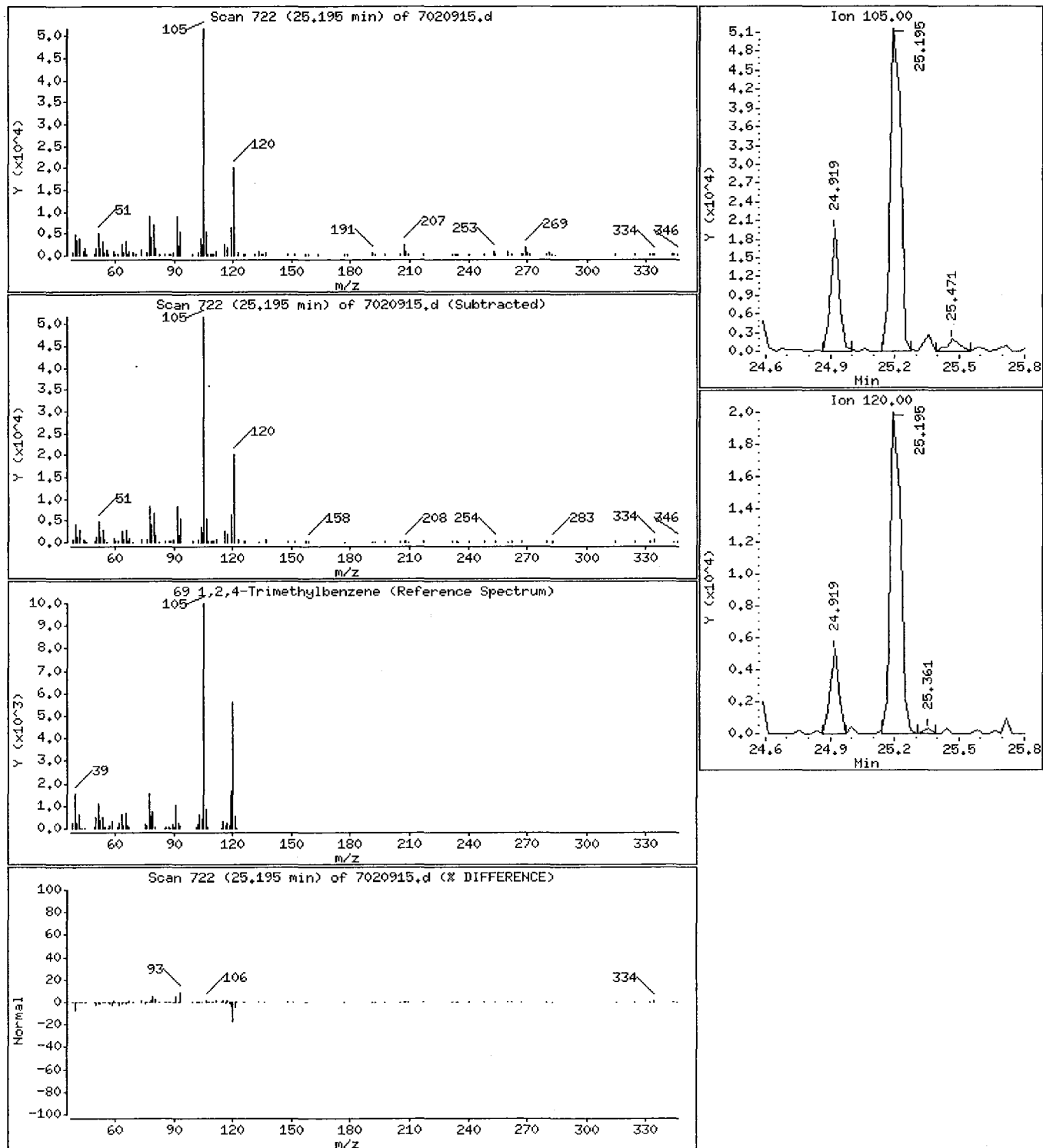
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.9084 PPEV



0329

AIR TOXICS LTD.

SAMPLE NAME: #9, Central Facilities Bldg, NW Rm Duplicate

ID#: 0502032-09AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020916	Date of Collection:	1/25/05
Dil. Factor:	1.44	Date of Analysis:	2/9/05 05:38 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	1.2	0.71	6.1
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.14	0.42	0.30	0.87
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	3.1	0.81	18
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Freon 113	0.14	0.085 J	1.1	0.65 J
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	0.21	0.70	1.0
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Carbon Tetrachloride	0.14	0.13 J	0.91	0.83 J
Benzene	0.14	1.3	0.46	4.1
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
Toluene	0.14	6.9	0.54	26
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	1.0	0.62	4.4
m,p-Xylene	0.14	3.6	0.62	16
o-Xylene	0.14	1.2	0.62	5.3
Styrene	0.14	0.20	0.61	0.84
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.99	Not Detected
1,3,5-Trimethylbenzene	0.14	0.29	0.71	1.4
1,2,4-Trimethylbenzene	0.14	0.97	0.71	4.8
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
Methylene Chloride	0.29	0.84	1.0	2.9
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected
1,3-Butadiene	0.72	0.16 J	1.6	0.34 J
Acetone	0.72	2.6	1.7	6.2
Carbon Disulfide	0.72	0.18 J	2.2	0.55 J

AIR TOXICS LTD.

SAMPLE NAME: #9, Central Facilities Bldg, NW Rm Duplicate

ID#: 0502032-09AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020916	Date of Collection:	1/25/05
Dil. Factor:	1.44	Date of Analysis:	2/9/05 05:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.72	28	1.8	68
trans-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	1.1	2.1	3.2
Hexane	0.72	1.1	2.5	3.8
Tetrahydrofuran	0.72	0.29 J	2.1	0.86 J
Cyclohexane	0.72	0.46 J	2.5	1.6 J
1,4-Dioxane	0.72	Not Detected	2.6	Not Detected
Bromodichloromethane	0.72	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	0.72	3.6	2.9	15
2-Hexanone	0.72	Not Detected	2.9	Not Detected
Dibromochloromethane	0.72	Not Detected	6.1	Not Detected
Bromoform	0.72	Not Detected	7.4	Not Detected
4-Ethyltoluene	0.72	1.0	3.5	5.0
Ethanol	0.72	6.0	1.4	11
Methyl tert-butyl ether	0.72	Not Detected	2.6	Not Detected
Heptane	0.72	0.58 J	3.0	2.4 J
Cumene	0.72	Not Detected	3.5	Not Detected
Propylbenzene	0.72	0.20 J	3.5	1.0 J
Naphthalene	0.72	Not Detected	3.8	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	109	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020916.d
Lab Smp Id: 0502032-09AA
Inj Date : 09-FEB-2005 17:38
Operator : nk
Smp Info : 500ml Can# 25275
Misc Info : 2.0"Hg-5psi, Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.44000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msd7.i

Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	448544	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	337034			26.96- 126.96	75.14
16.331	16.331	(1.000)	49	794250			126.50- 226.50	177.07

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2037248	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	348496			0.00- 67.64	17.11

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1441218	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	872455			9.26- 109.26	60.54

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
17.214	17.214	(1.054)	65	956162	10.3500	10.350	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	455945			0.17- 100.17	47.68

\$ 45 Toluene-d8						CAS #: 2037-26-5		
19.893	19.893	(1.118)	98	1711447	9.84685	9.847	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	218904			0.00- 62.11	12.79

0332

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1227100			22.24-	122.24	71.70

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	809920	10.8785	10.878	80.00-	120.00	100.00
23.953	23.953	(1.082)	95	1228288			97.68-	197.68	151.66
23.953	23.953	(1.082)	176	760801			43.78-	143.78	93.94

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	312516	0.85956	1.238	80.00-	120.00	100.00
5.947	5.947	(0.364)	87	101771			0.00-	81.67	32.57

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	30626	0.29218	0.4207	80.00-	120.00	100.00
7.383	7.356	(0.452)	52	9903			0.00-	84.65	32.34

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	10333	0.10813	0.1557	80.00-	120.00	100.00(a)
8.295	8.295	(0.508)	39	13289			48.03-	148.03	128.61

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	684730	2.16585	3.119	80.00-	120.00	100.00
11.056	11.056	(0.677)	103	435008			13.78-	113.78	63.53

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	184958	4.16815	6.002	80.00-	120.00	100.00
12.050	12.050	(0.738)	43	43925			0.00-	76.71	23.75
12.050	12.050	(0.738)	46	70869			0.00-	90.17	38.32

15 Freon 113						CAS #: 76-13-1			
12.575	12.547	(0.770)	151	7722	0.05909	0.08509	80.00-	120.00	100.00(a)
12.547	12.547	(0.768)	153	5039			10.77-	110.77	65.26
12.547	12.547	(0.768)	101	9949			83.72-	183.72	128.84

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	427253	1.80768	2.603	80.00-	120.00	100.00
12.851	12.824	(0.787)	58	111514			0.00-	78.78	26.10

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	4279925	19.1580	27.588	80.00-	120.00	100.00
13.238	13.238	(0.811)	43	833761			0.00-	69.75	19.48
13.238	13.238	(0.811)	59	151464			0.00-	53.72	3.54

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	36084	0.12292	0.1770	80.00-	120.00	100.00(a)

0333

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	54850	0.58642	0.8444	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	69391			111.57- 211.57	126.51	
13.735	13.735	(0.841)	51	23302			0.00- 93.42	42.48	

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	134746	0.76027	1.095	80.00- 120.00	100.00	
14.563	14.563	(0.892)	43	98510			15.23- 115.23	73.11	
14.563	14.563	(0.892)	86	25311			0.00- 65.23	18.78	

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	36570	0.74666	1.075	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	213191			1046.10-1146.10	582.97	
15.972	15.972	(0.978)	57	15410			0.00- 89.21	42.14	

23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	27452	0.20198	0.2908	80.00- 120.00	100.00(a)	
16.331	16.331	(1.000)	71	12543			0.00- 82.39	45.69	
16.331	16.331	(1.000)	72	9590			0.00- 86.54	34.93	

30 Chloroform						CAS #: 67-66-3			
16.414	16.414	(1.005)	83	31656	0.14754	0.2124	80.00- 120.00	100.00	
16.414	16.414	(1.005)	85	20222			14.01- 114.01	63.88	

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	31511	0.32155	0.4630	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	99323			93.37- 193.37	315.20	
16.662	16.662	(1.020)	41	64770			30.80- 130.80	205.55	

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	14736	0.09149	0.1317	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	13810			62.01- 162.01	93.72	

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	263267	0.89043	1.282	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	60340			0.00- 72.07	22.92	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	69077	0.40014	0.5762	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	31829			1.42- 101.42	46.08	
17.435	17.435	(0.980)	100	13048			0.00- 66.93	18.89	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	478341	2.50472	3.607	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	182772			0.00- 87.49	38.21	
19.727	19.727	(1.109)	85	81282			0.00- 66.91	16.99	

0334

CONCENTRATIONS									
RT	EXP RT	RT (REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO	
				RESPONSE	(PPBV)	(PPBV)			

46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	1615848	4.77037	6.869	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	992797			11.18- 111.18	61.44	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	83645	0.70688	1.018	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	283141			294.68- 394.68	338.50	

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	362117	2.50212	3.603	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	797036			168.06- 268.06	220.10	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	100046	0.84885	1.222	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	235359			186.48- 286.48	235.25	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	24987	0.13696	0.1972	80.00- 120.00	100.00	
23.069	23.096	(1.042)	78	31414			6.37- 106.37	125.72	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	55545	0.14108	0.2031	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	9719			0.00- 69.13	17.50	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	220875	0.70336	1.013	80.00- 120.00	100.00	
24.422	24.450	(1.104)	120	54110			0.00- 73.94	24.50	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	55539	0.19934	0.2870	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	21438			0.00- 88.64	38.60	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	179231	0.67246	0.9683	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	62389			0.00- 87.09	34.81	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0335

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i Calibration Date: 09-FEB-2005
Lab File ID: 7020916.d Calibration Time: 00:48
Lab Smp Id: 0502032-09AA
Analysis Type: VOA Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 2.0"Hg-5psi, Clayton

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	448544	-5.49
38 1,4-Difluorobenze	2234295	1340577	3128013	2037248	-8.82
54 Chlorobenzene-d5	1557243	934346	2180140	1441218	-7.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0336

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-09feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-09AA	
Level: LOW	Operator: nk
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 2.0"Hg-5psi, Clayton	

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.350	103.50	70-130
\$ 45 Toluene-d8	10.000	9.847	98.47	70-130
\$ 63 Bromofluorobenzene	10.000	10.878	108.78	70-130

0337

Date : 09-FEB-2005 17:38

Client ID:

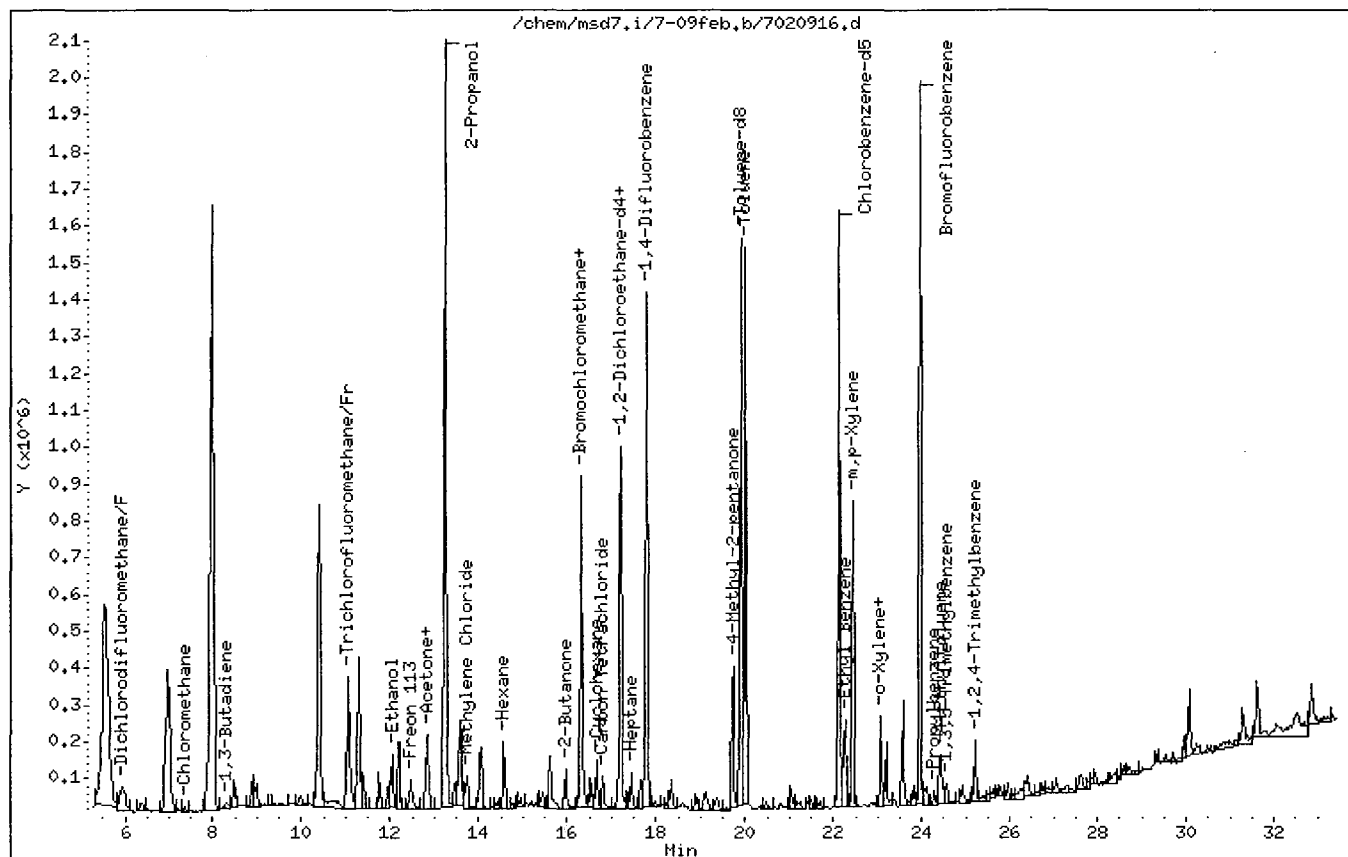
Instrument: msd7.i

Sample Info: 500ml Can# 25275

Operator: nk

Column phase: RTx-624

Column diameter: 0.32



0338

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

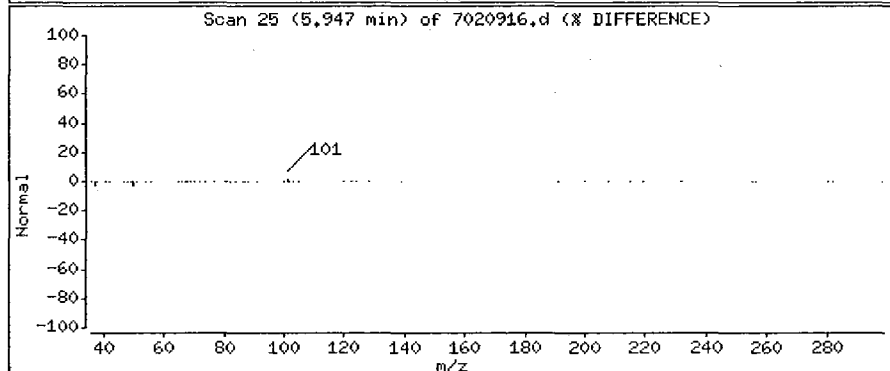
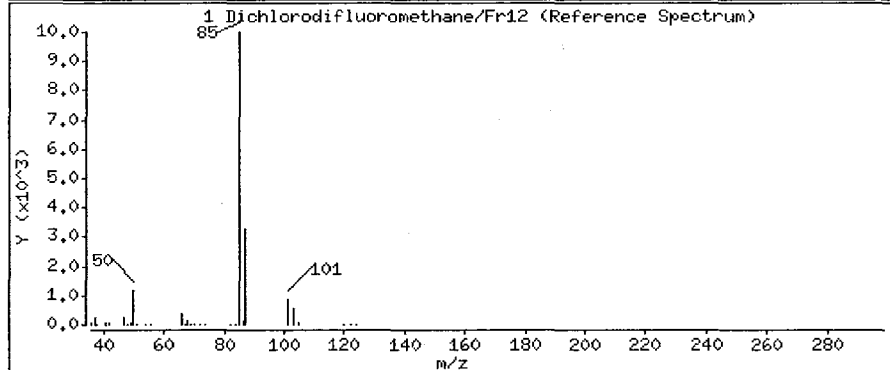
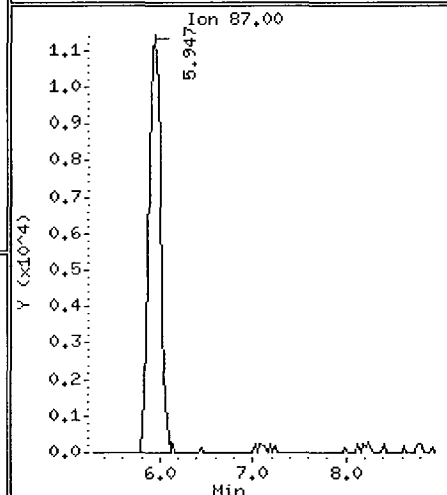
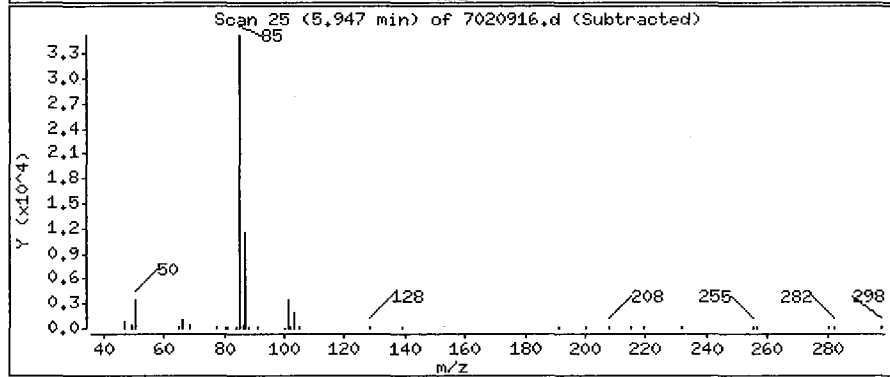
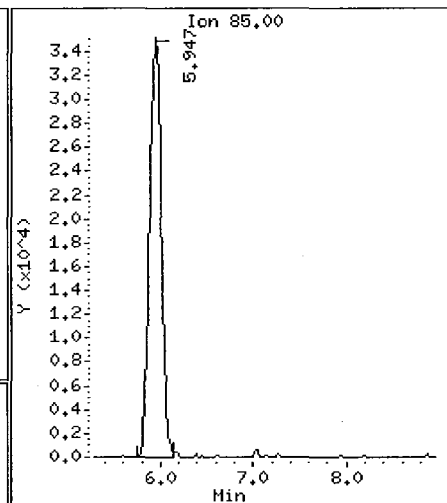
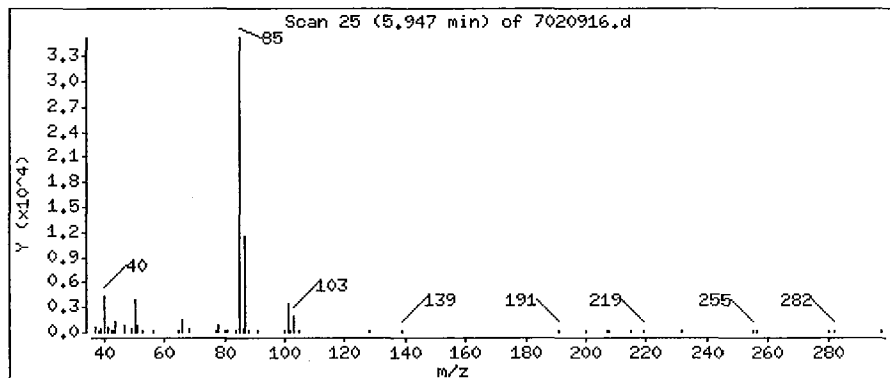
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.238 PPBV



0339

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

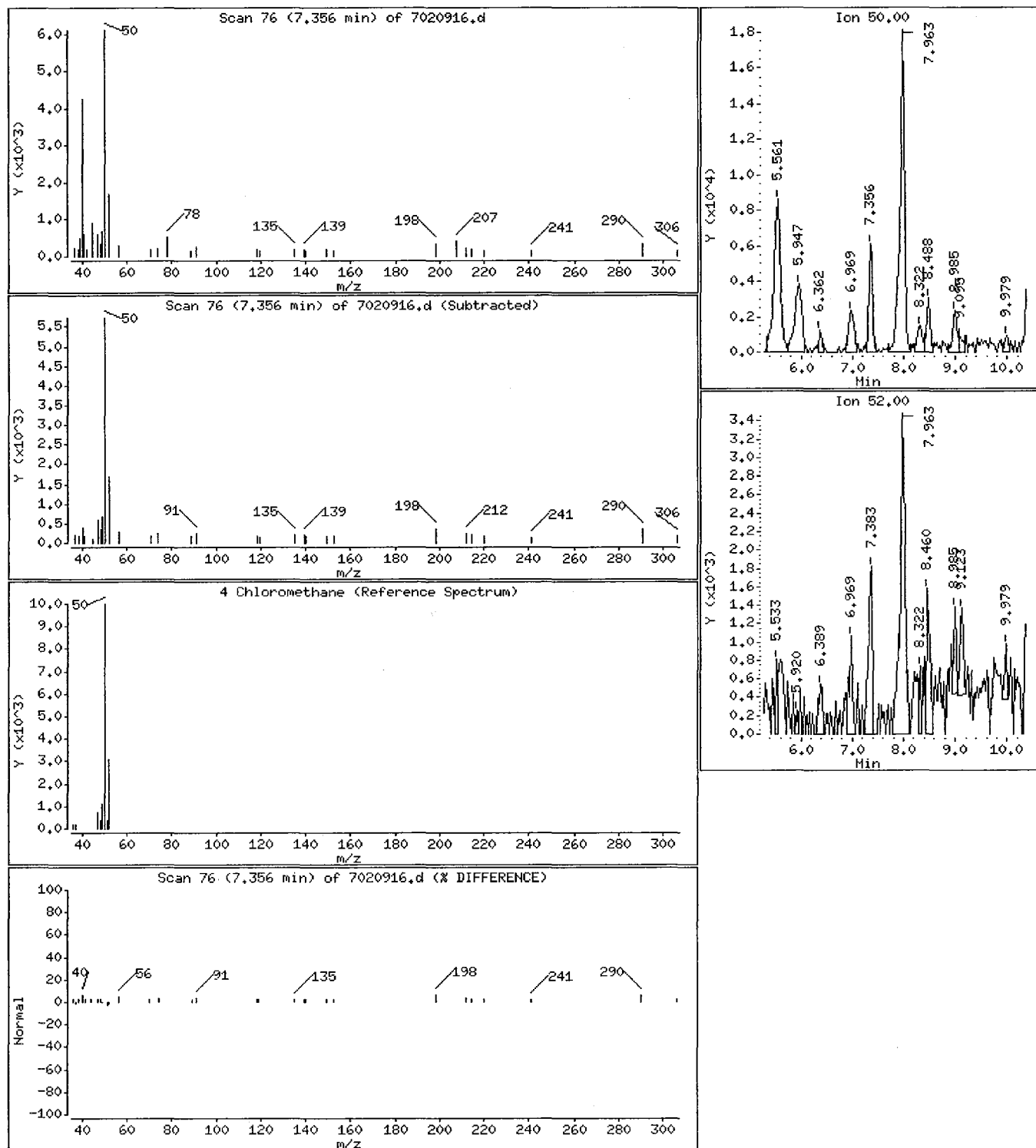
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4207 PPBV



0340

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

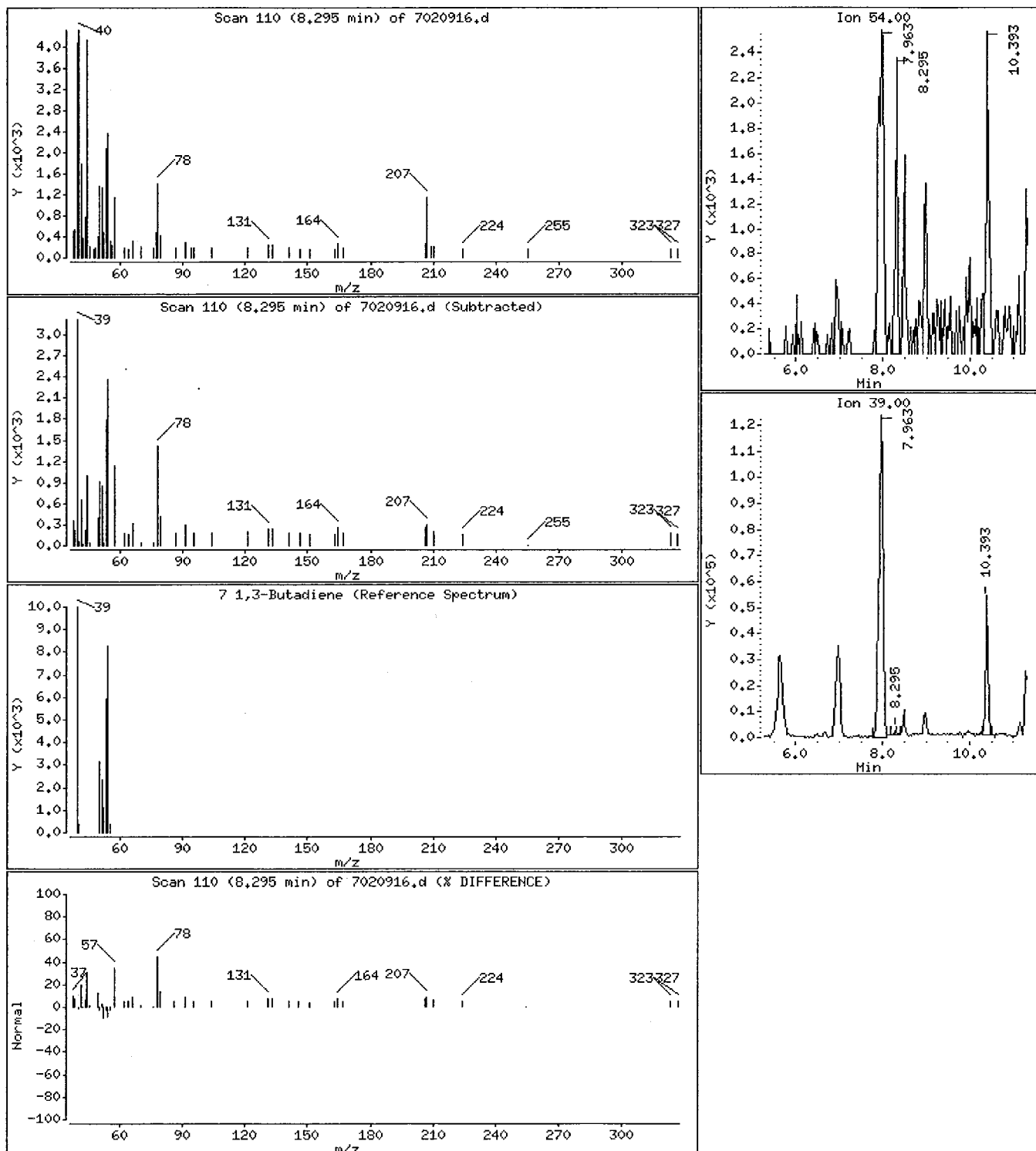
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1557 PPBV



0341

SCOEPA00032013

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

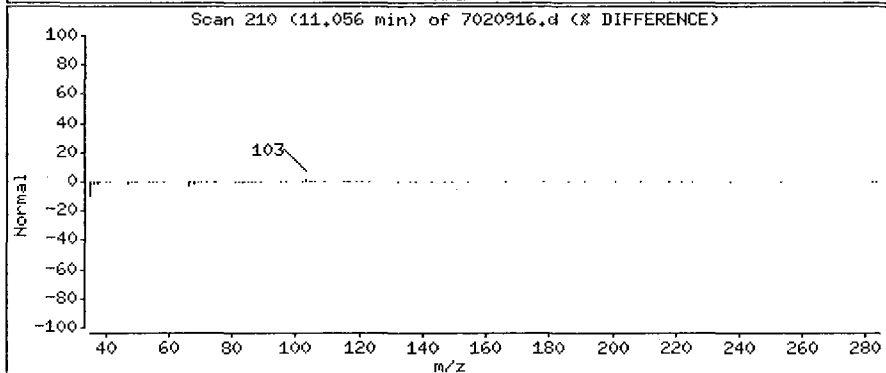
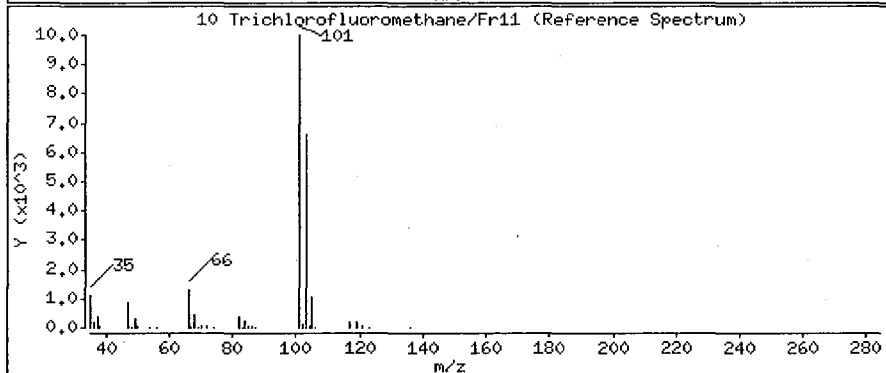
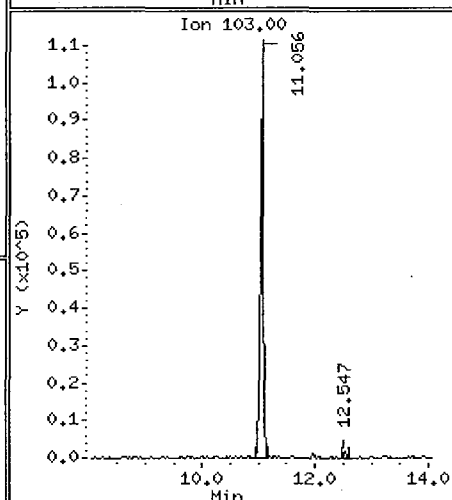
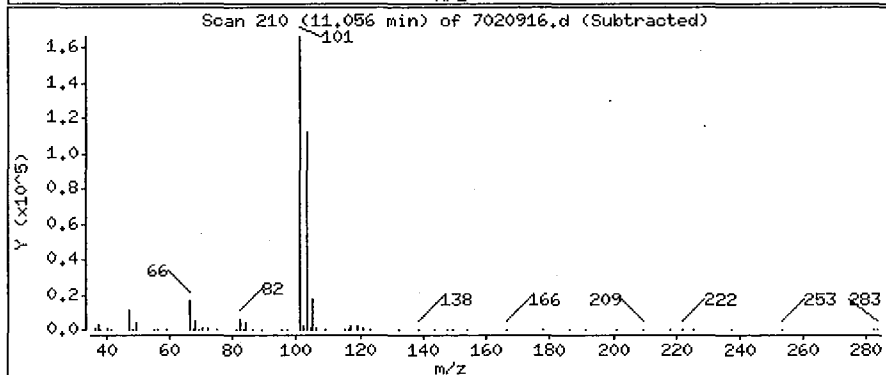
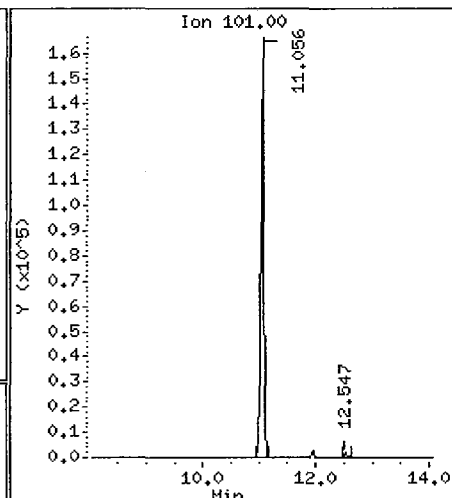
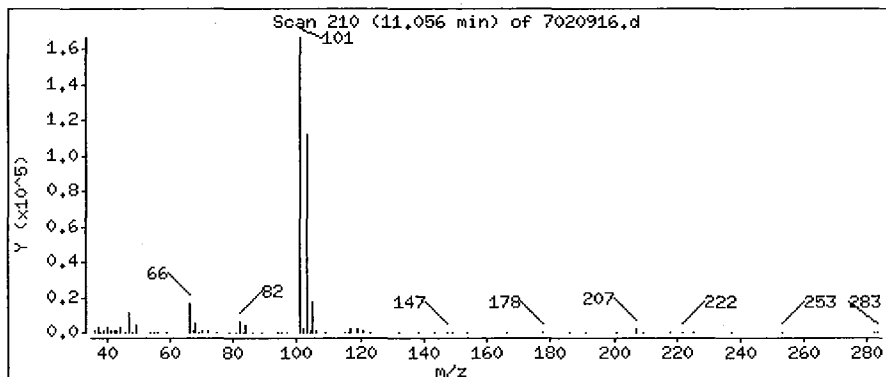
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 3.119 PPBV



0342

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

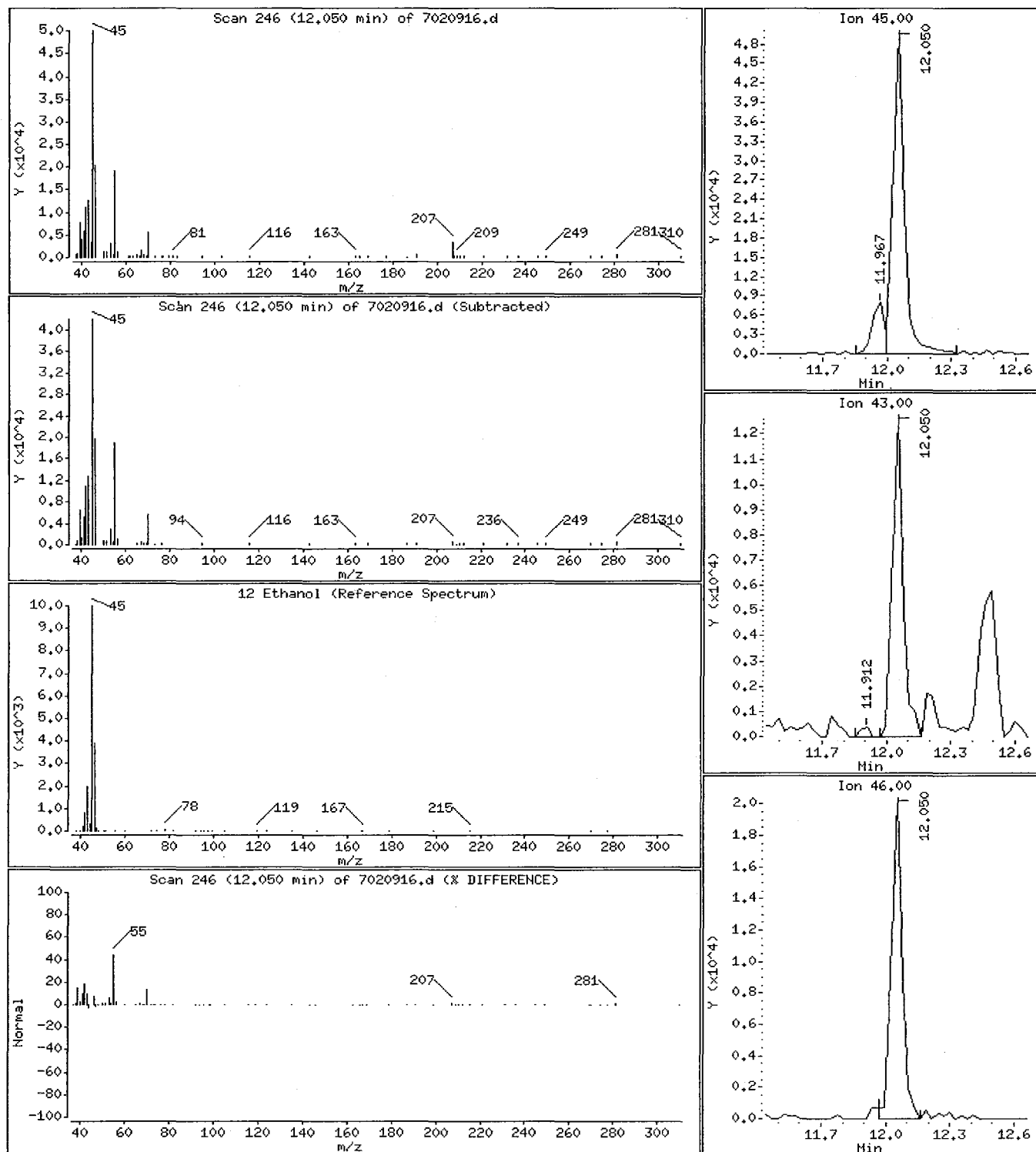
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 6.002 PPBV



0343

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

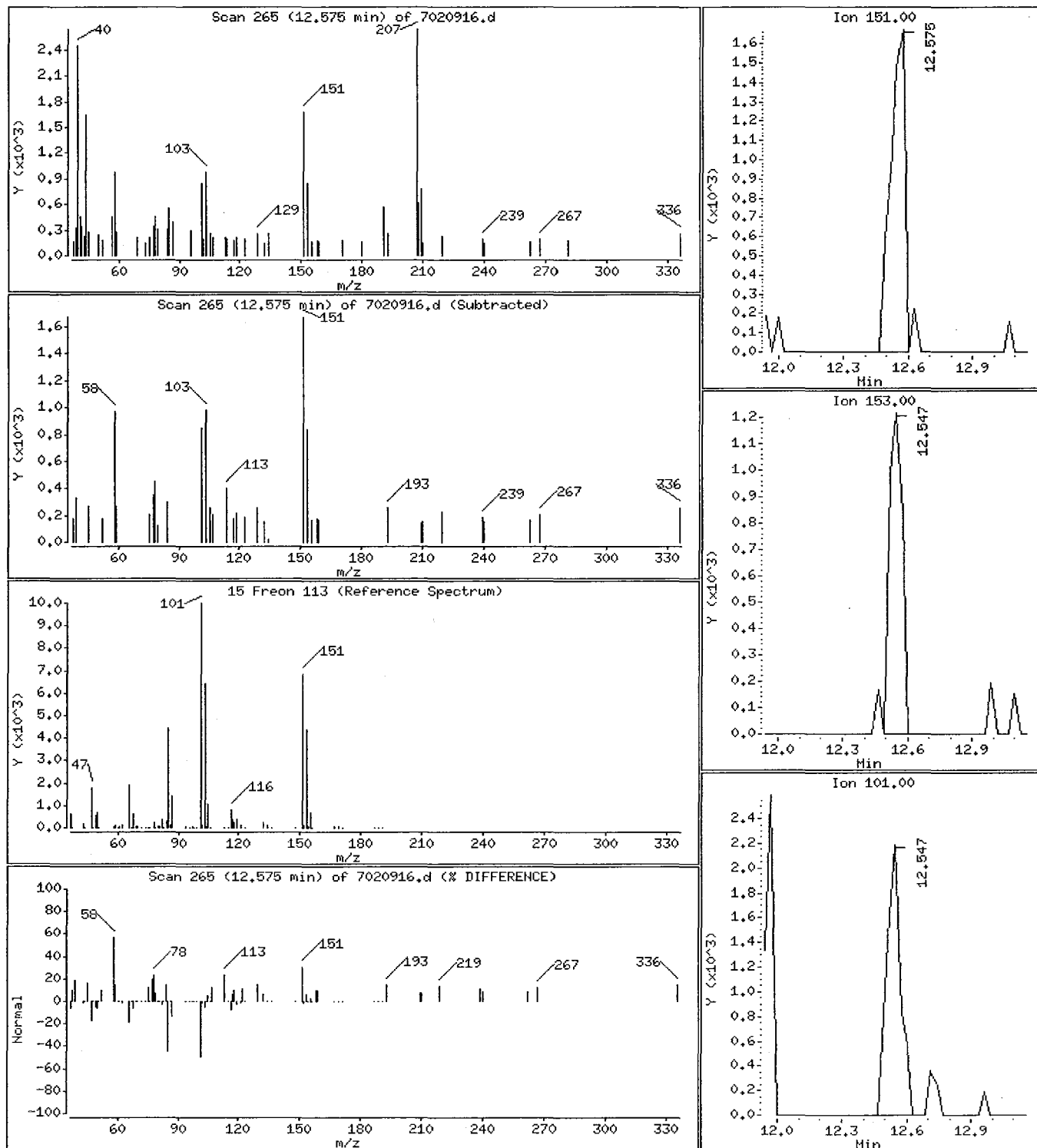
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

15 Freon 113

Concentration: 0.08509 PPBV



0344

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

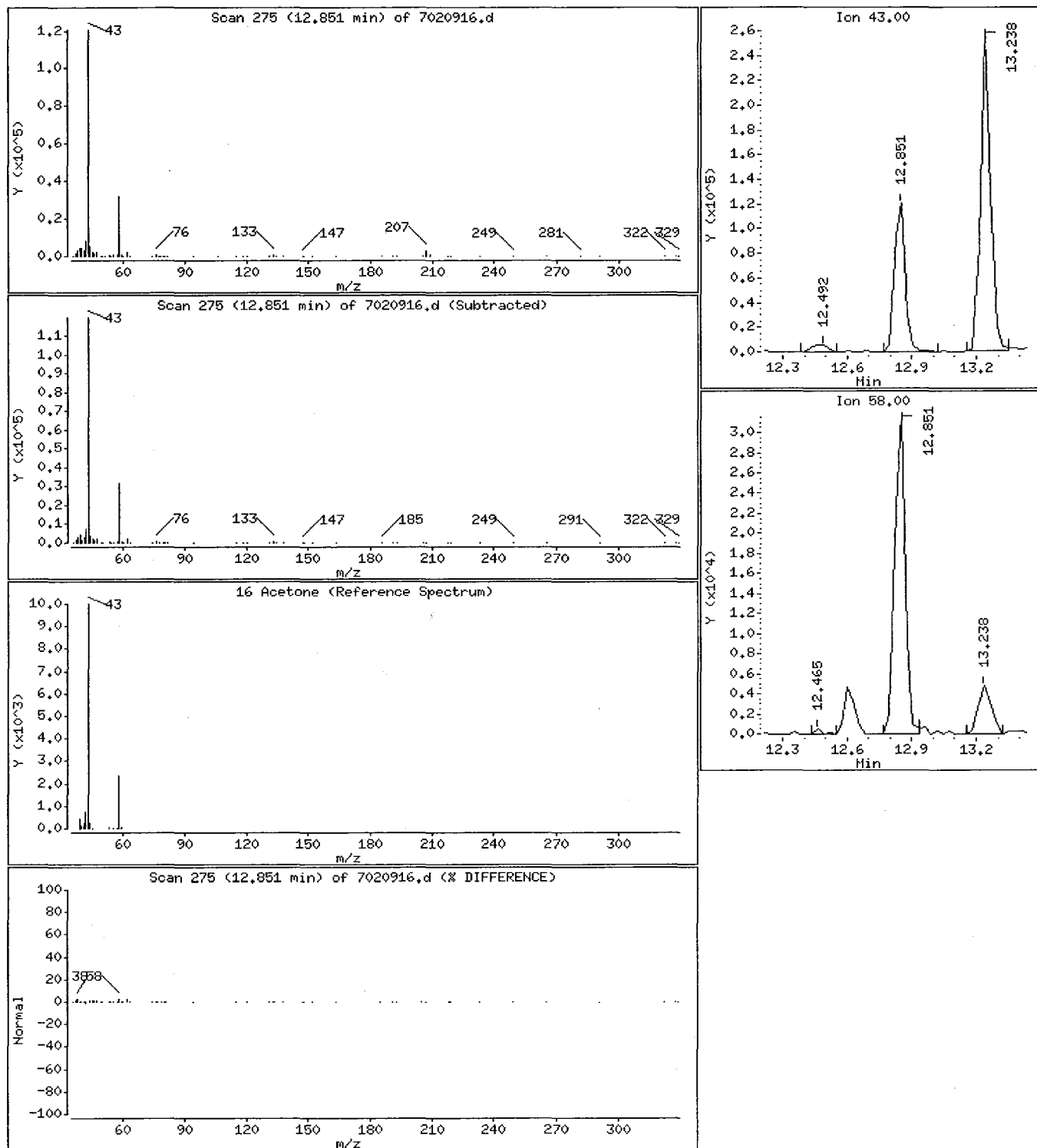
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 2.603 PPBV



0345

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

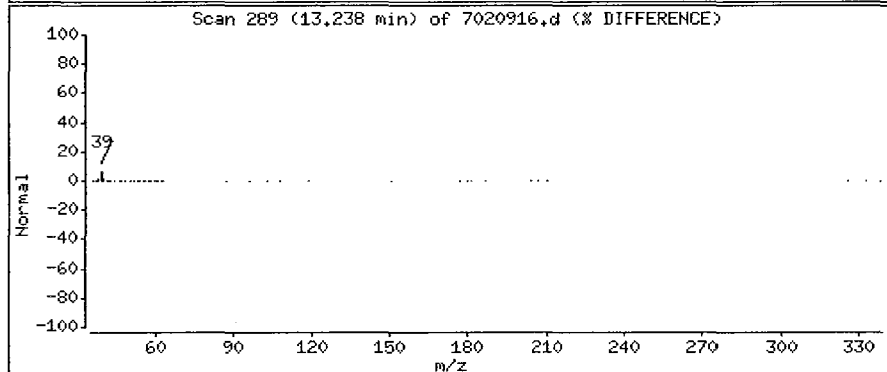
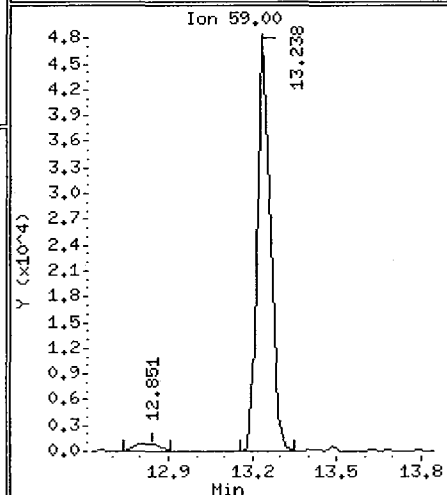
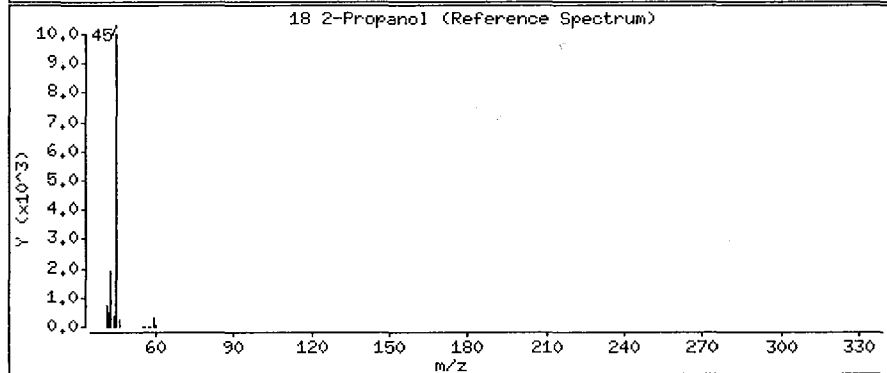
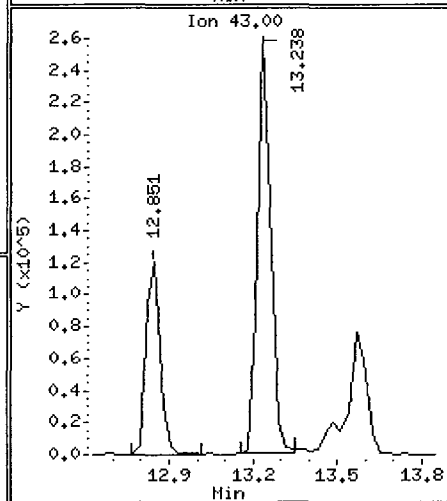
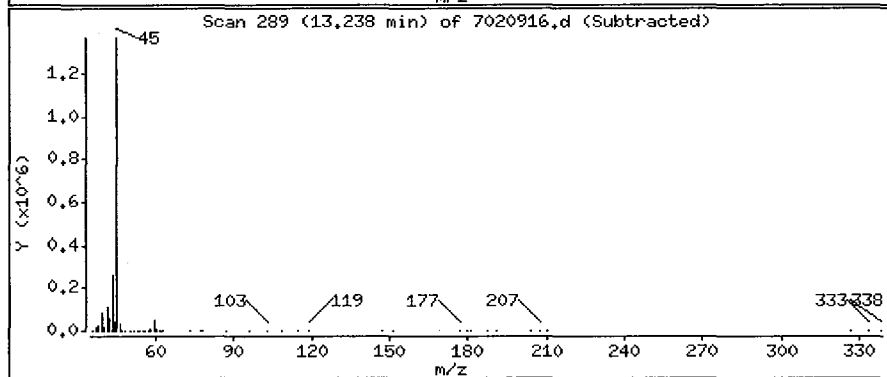
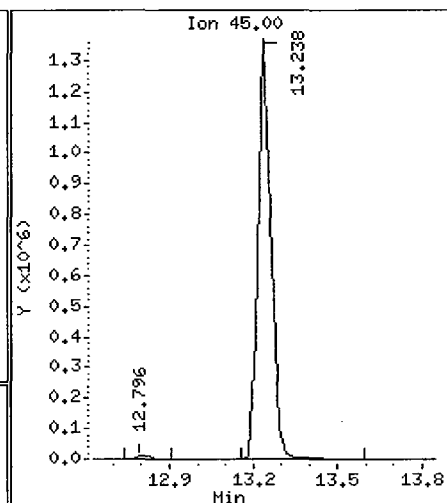
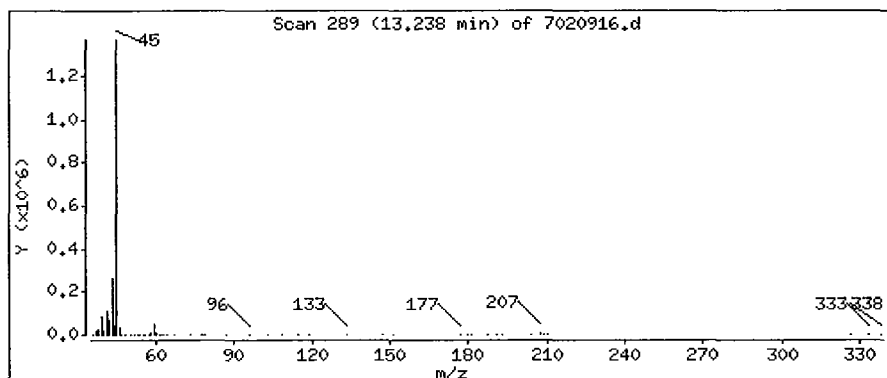
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 27,588 PPBV



0346

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

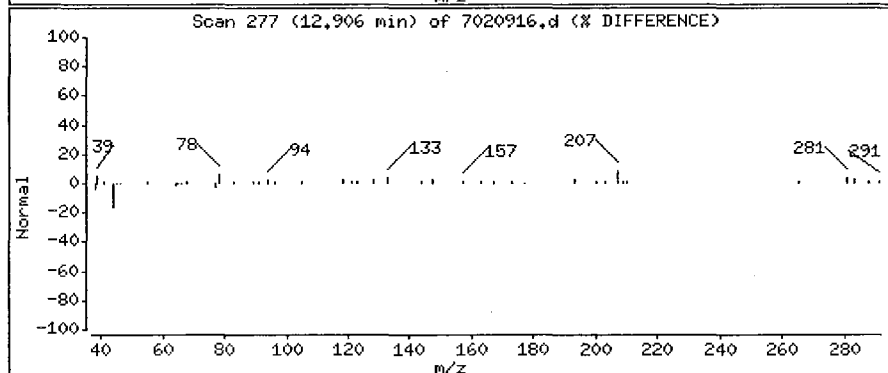
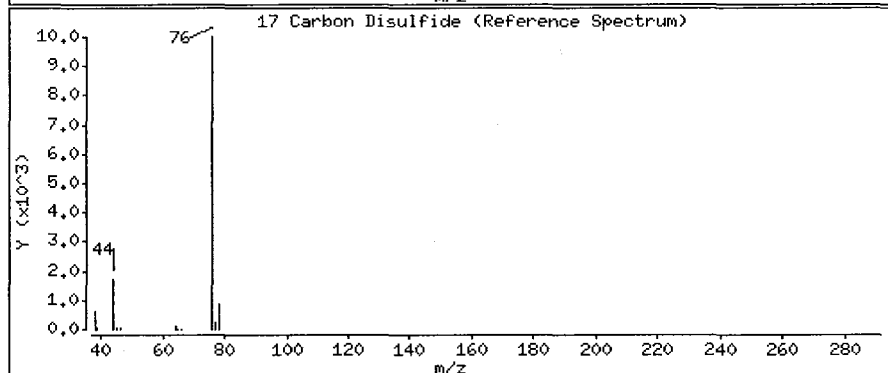
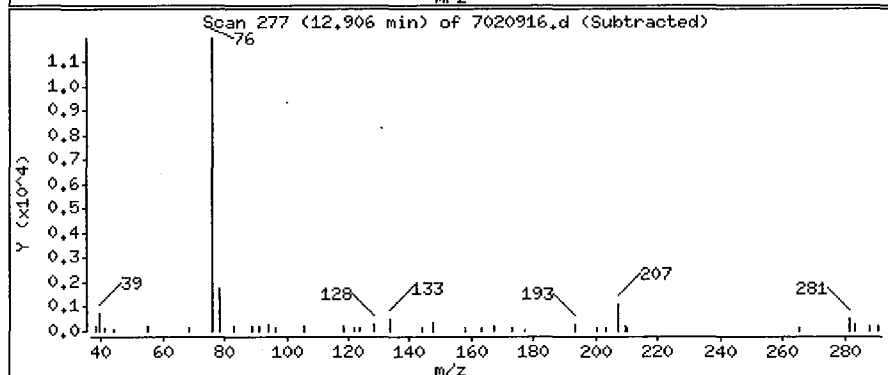
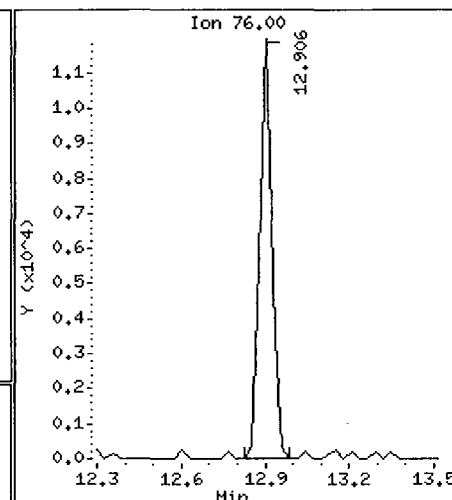
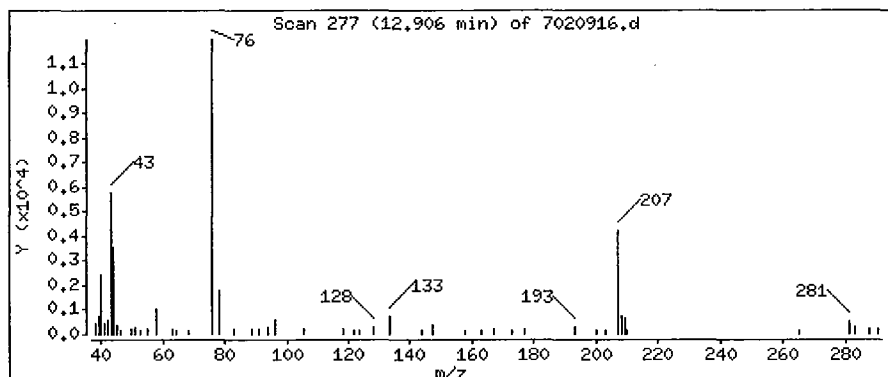
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.1770 PPBV



0347

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

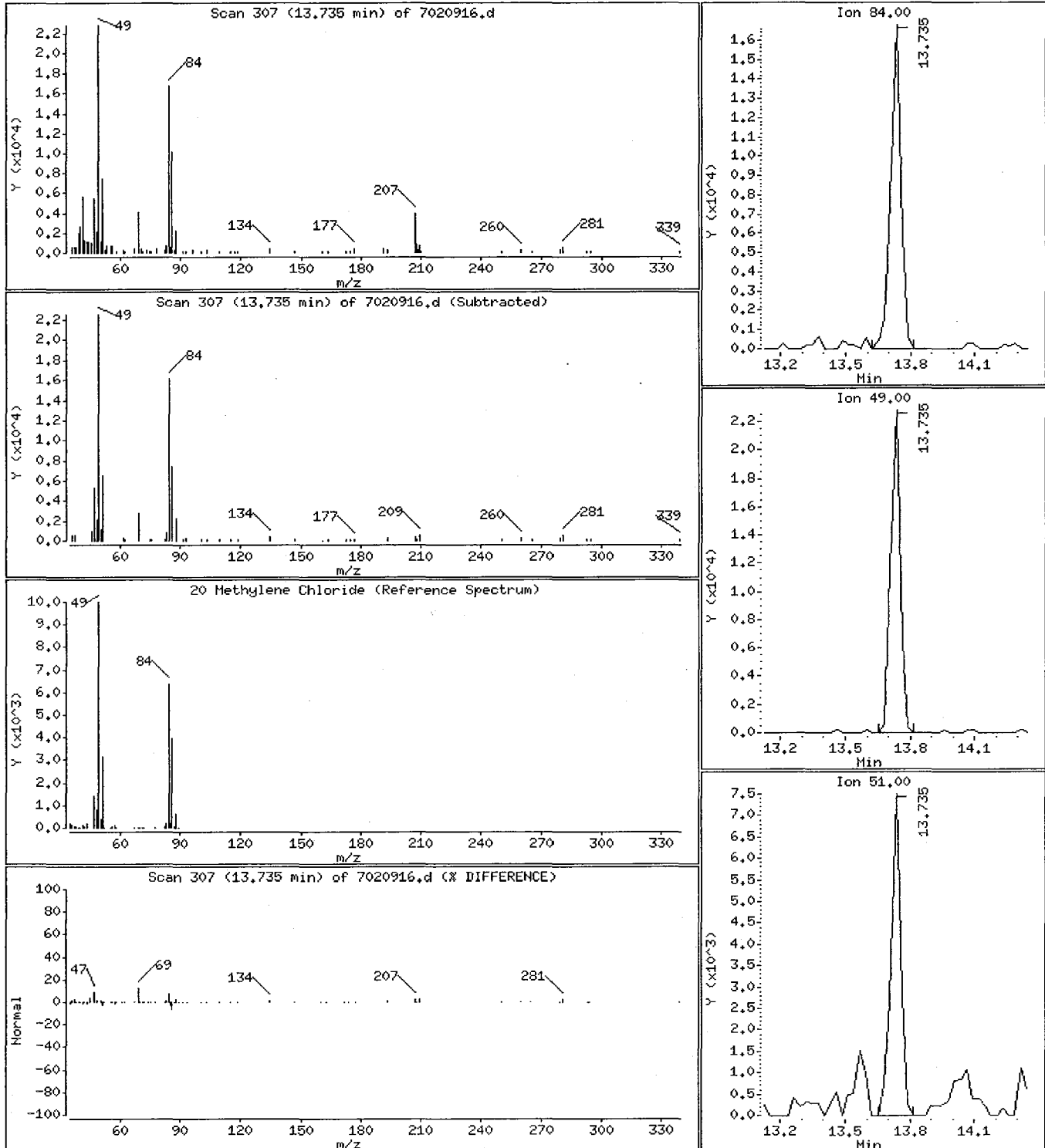
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.8444 PPBV



0348

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

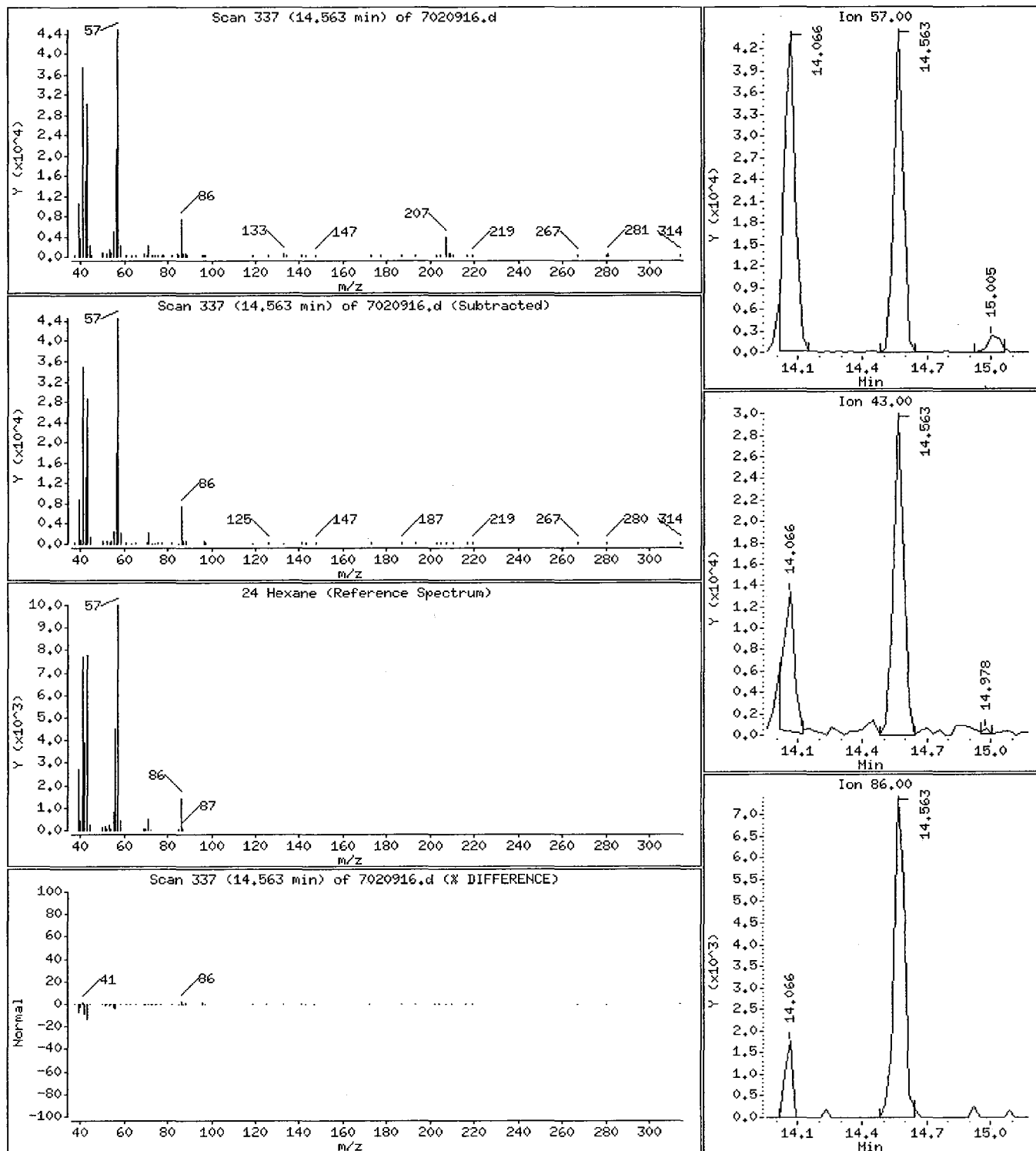
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

24 Hexane

Concentration: 1.095 PPBV



0349

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

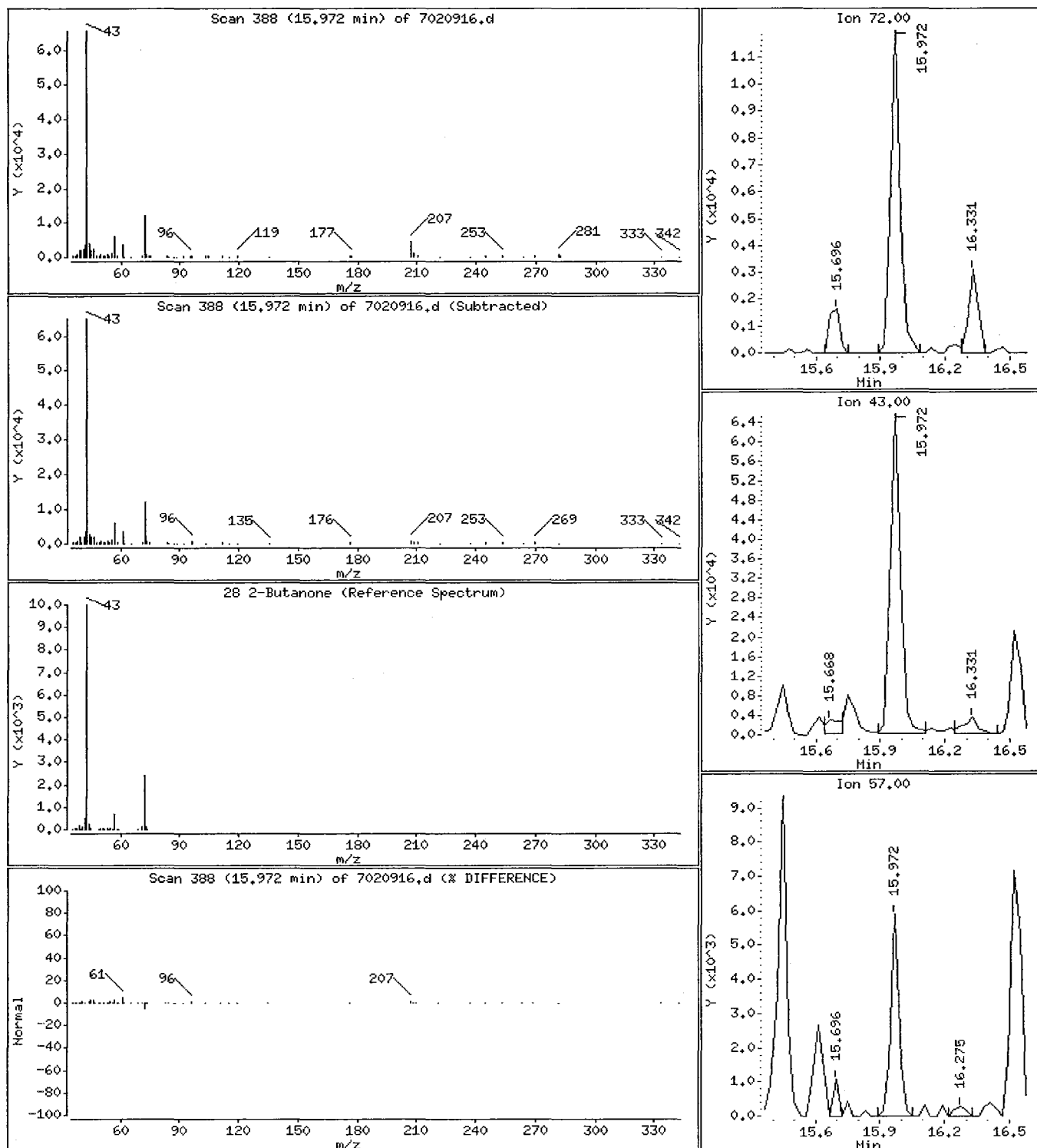
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.075 PPBV



0350

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

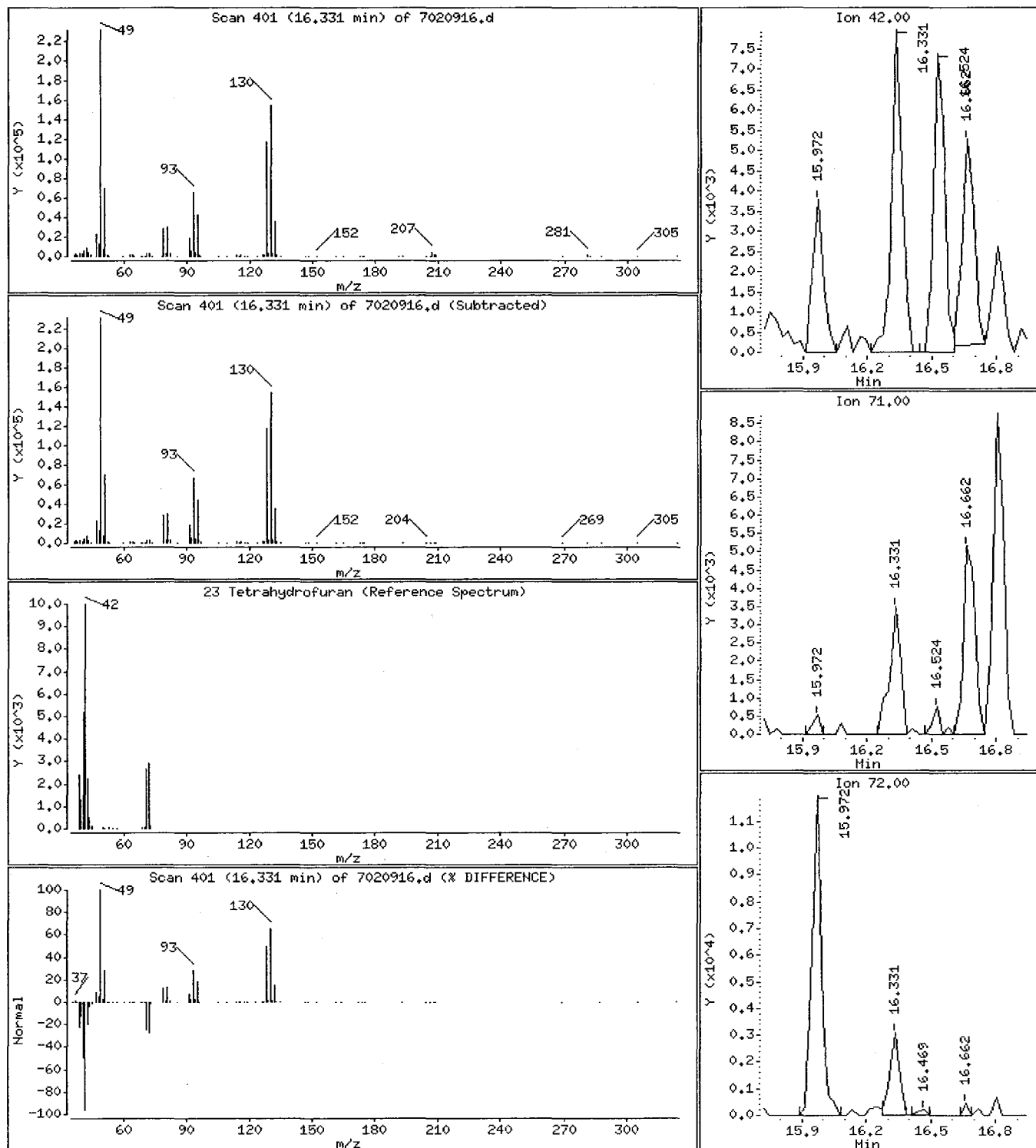
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.2908 PPBV



0351

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

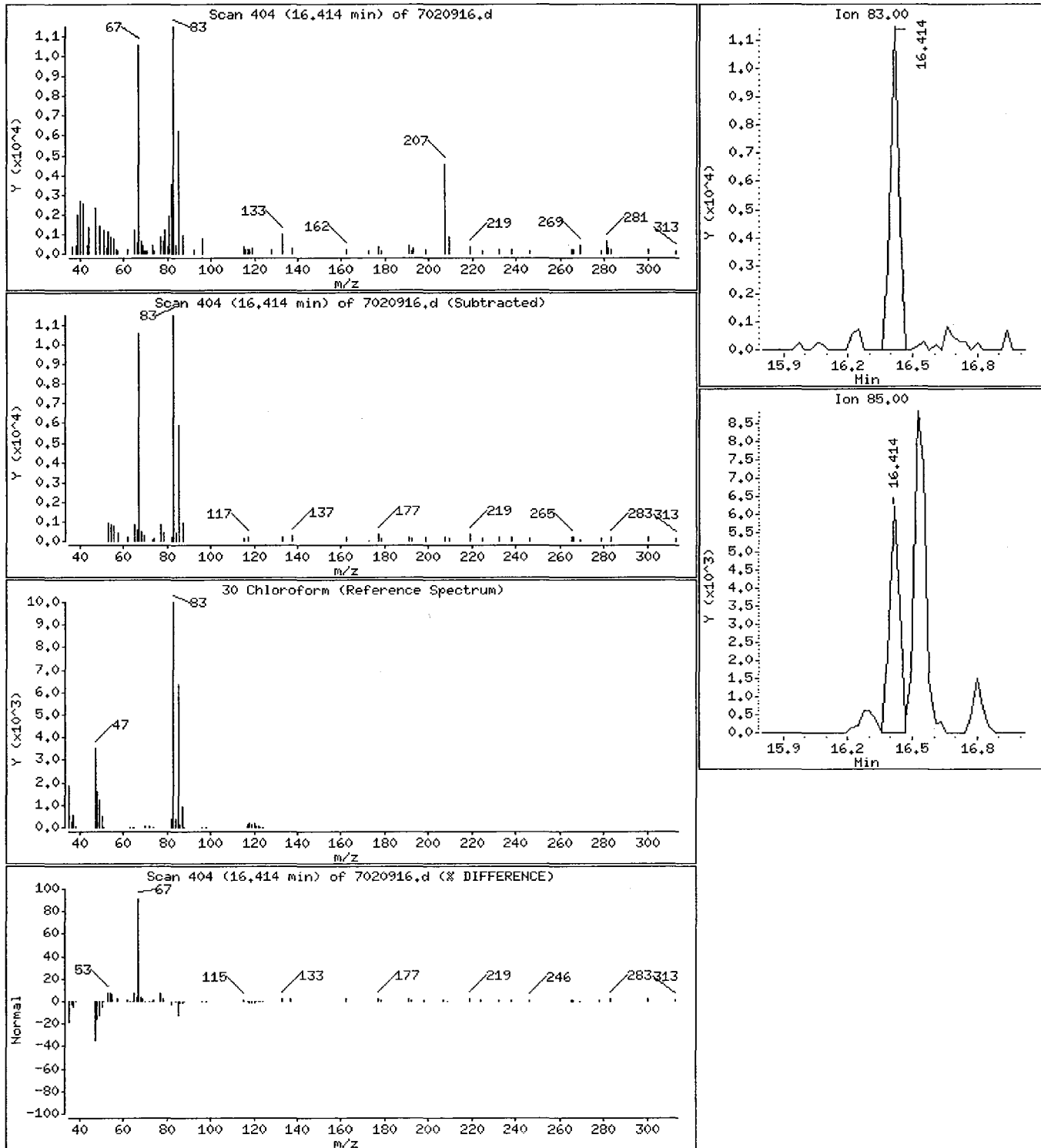
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.2124 PPBV



0352

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

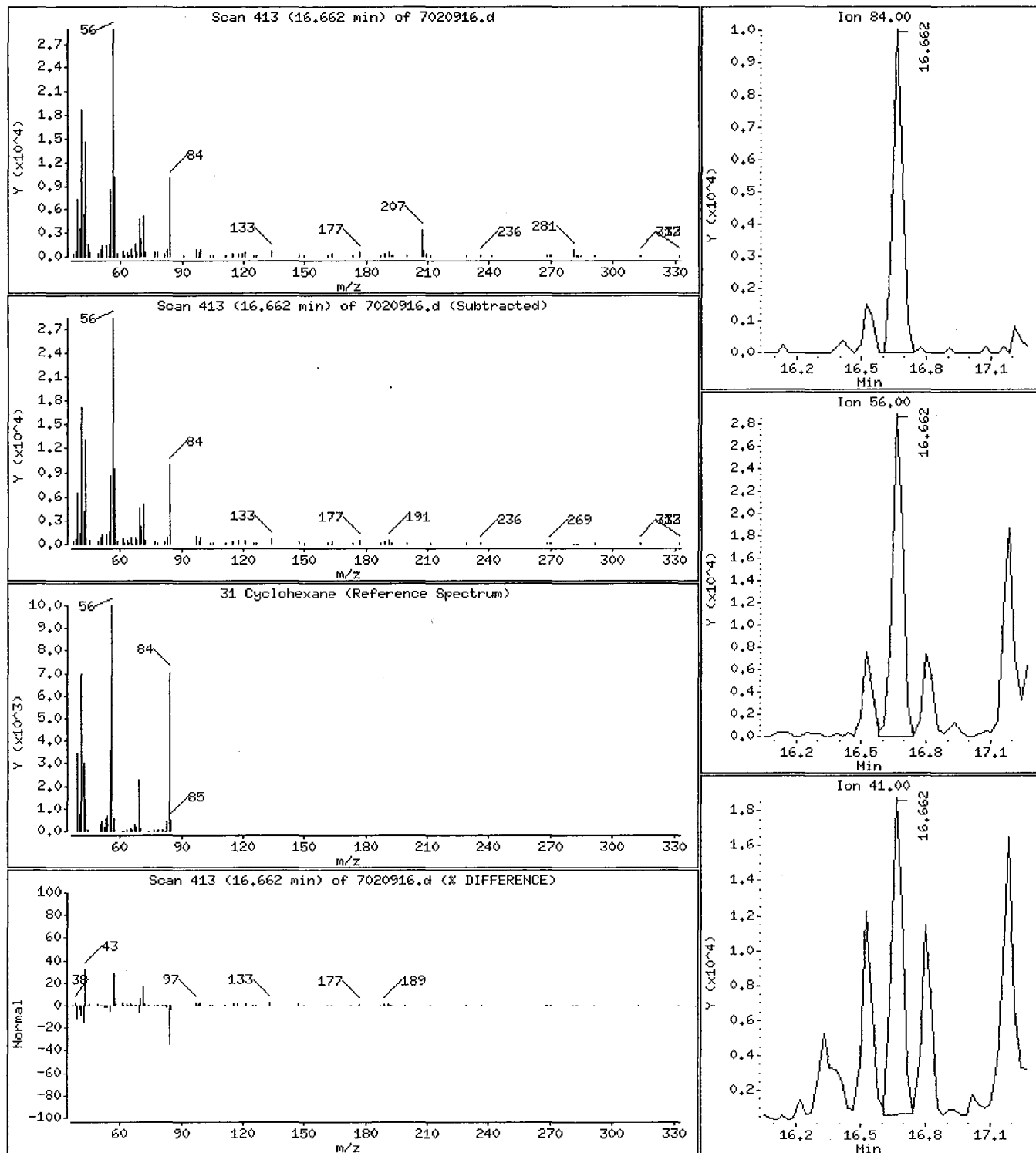
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.4630 PPBV



0353

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

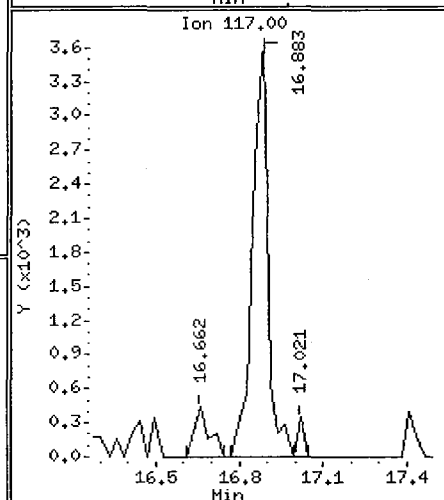
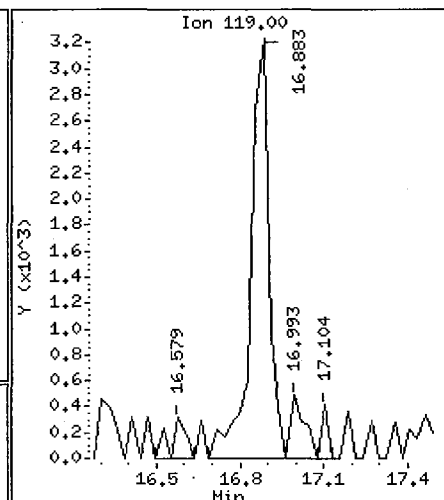
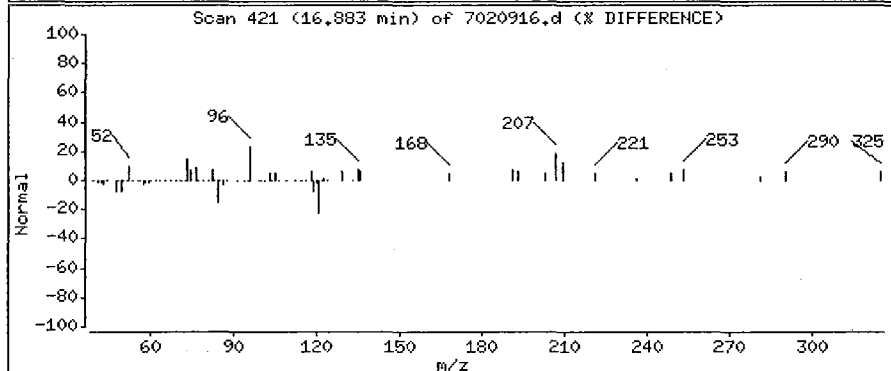
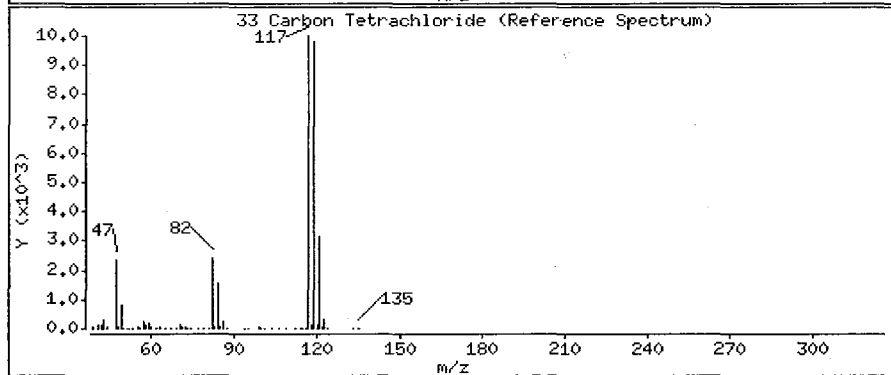
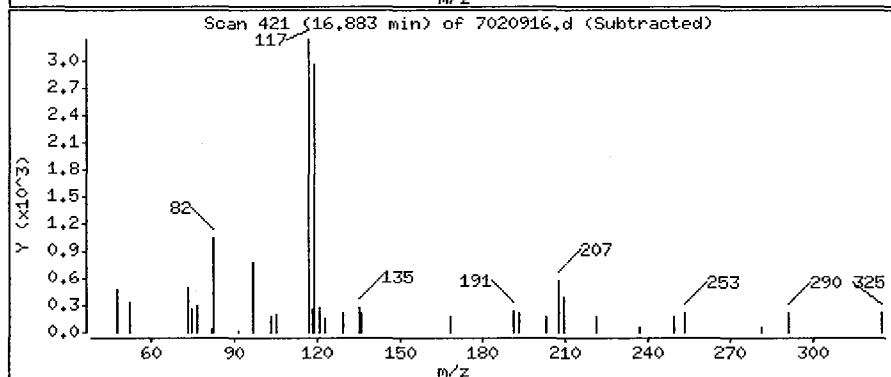
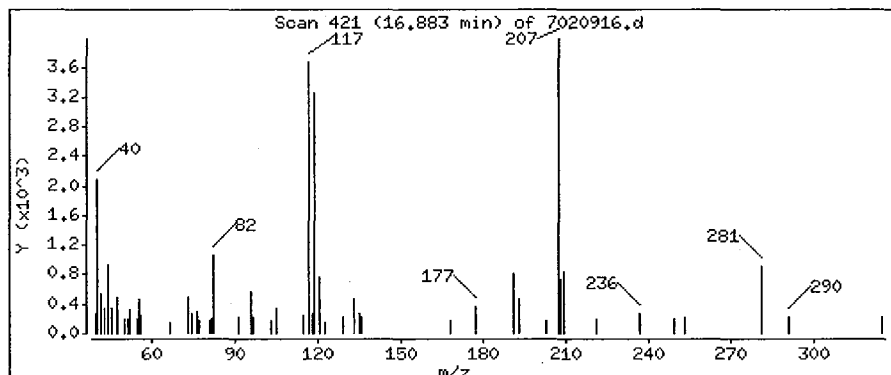
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1317 PPBV



0354

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

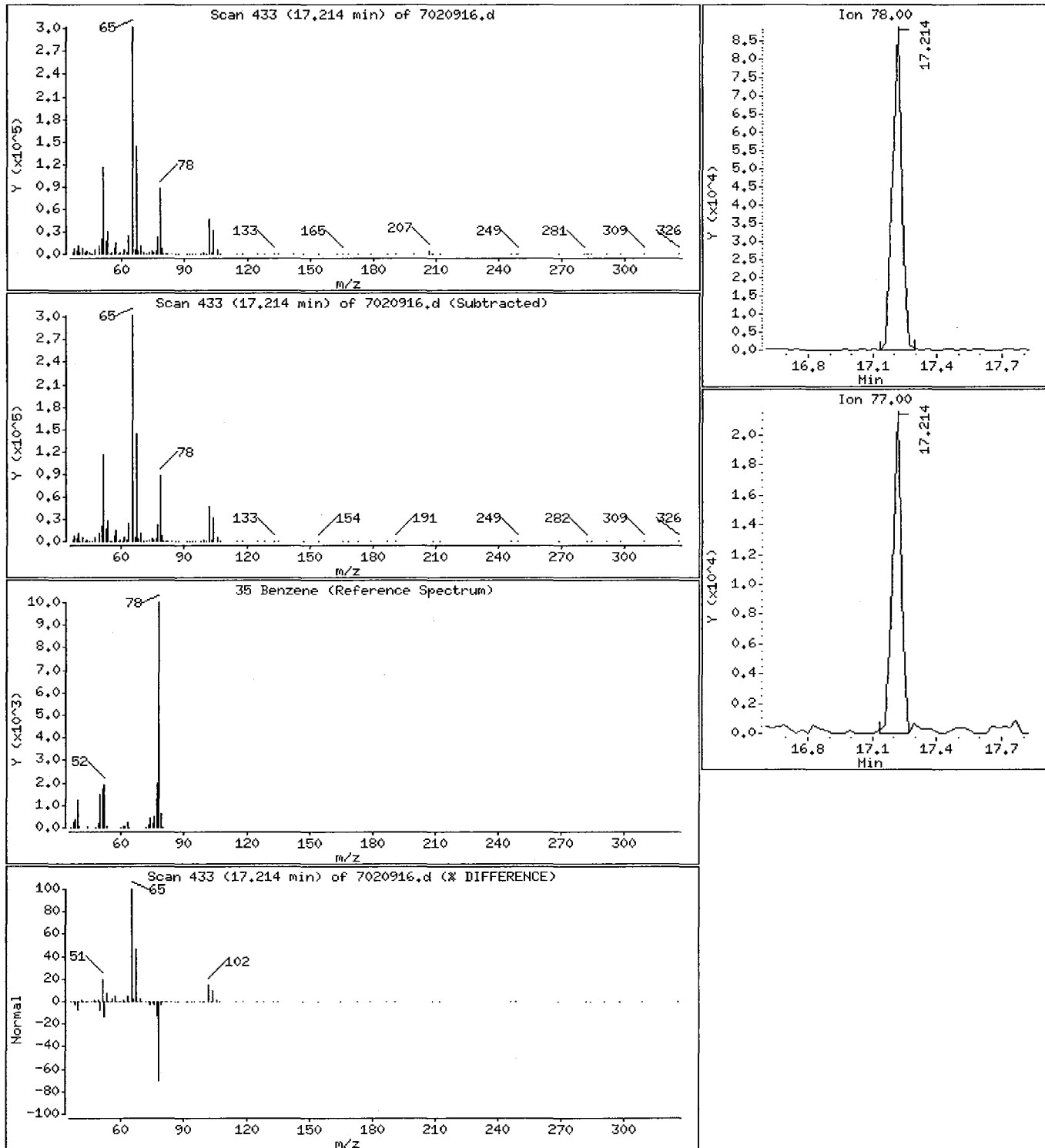
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

35 Benzene

Concentration: 1,282 PPBW



0355

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

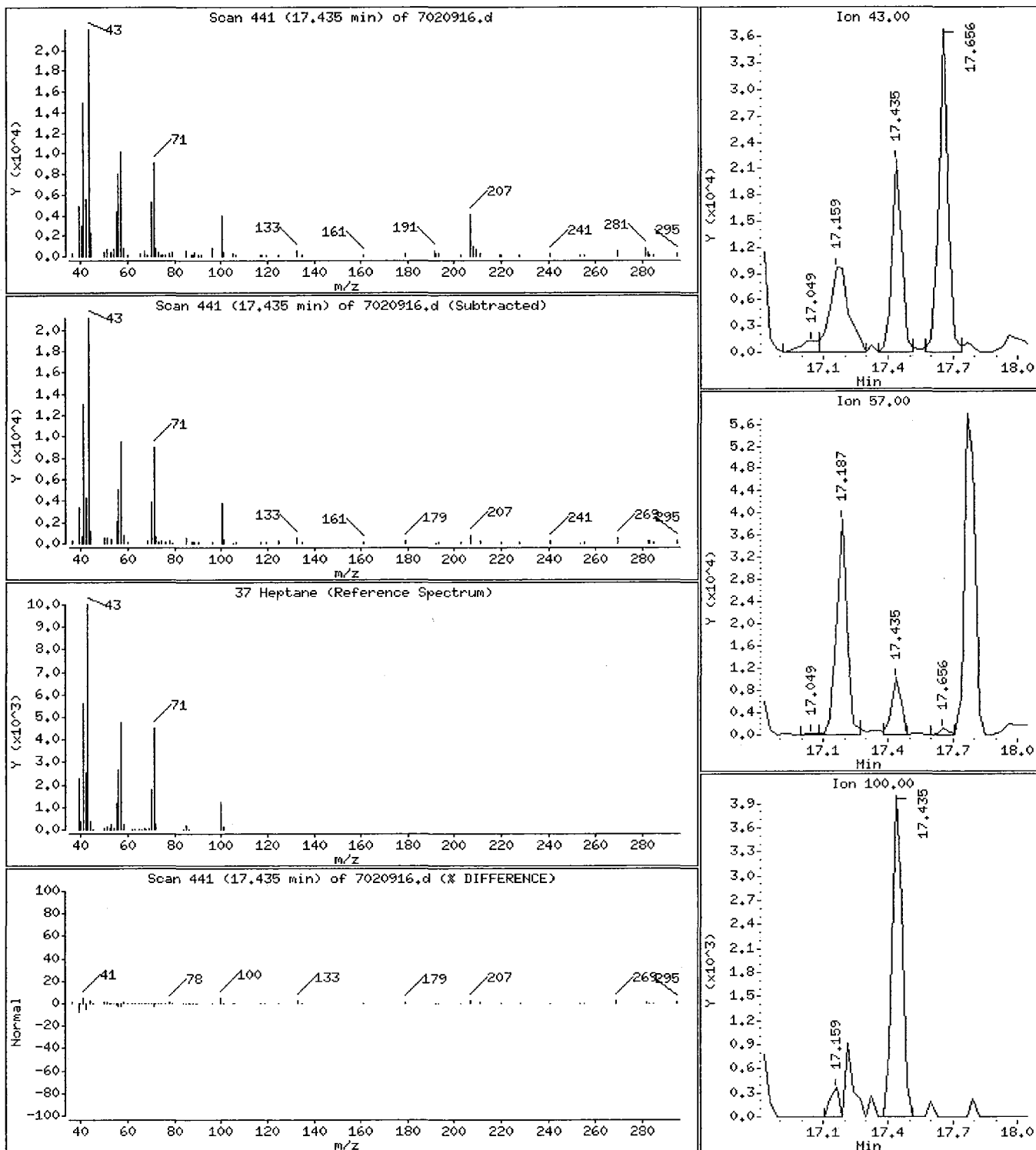
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.5762 PPBV



0356

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

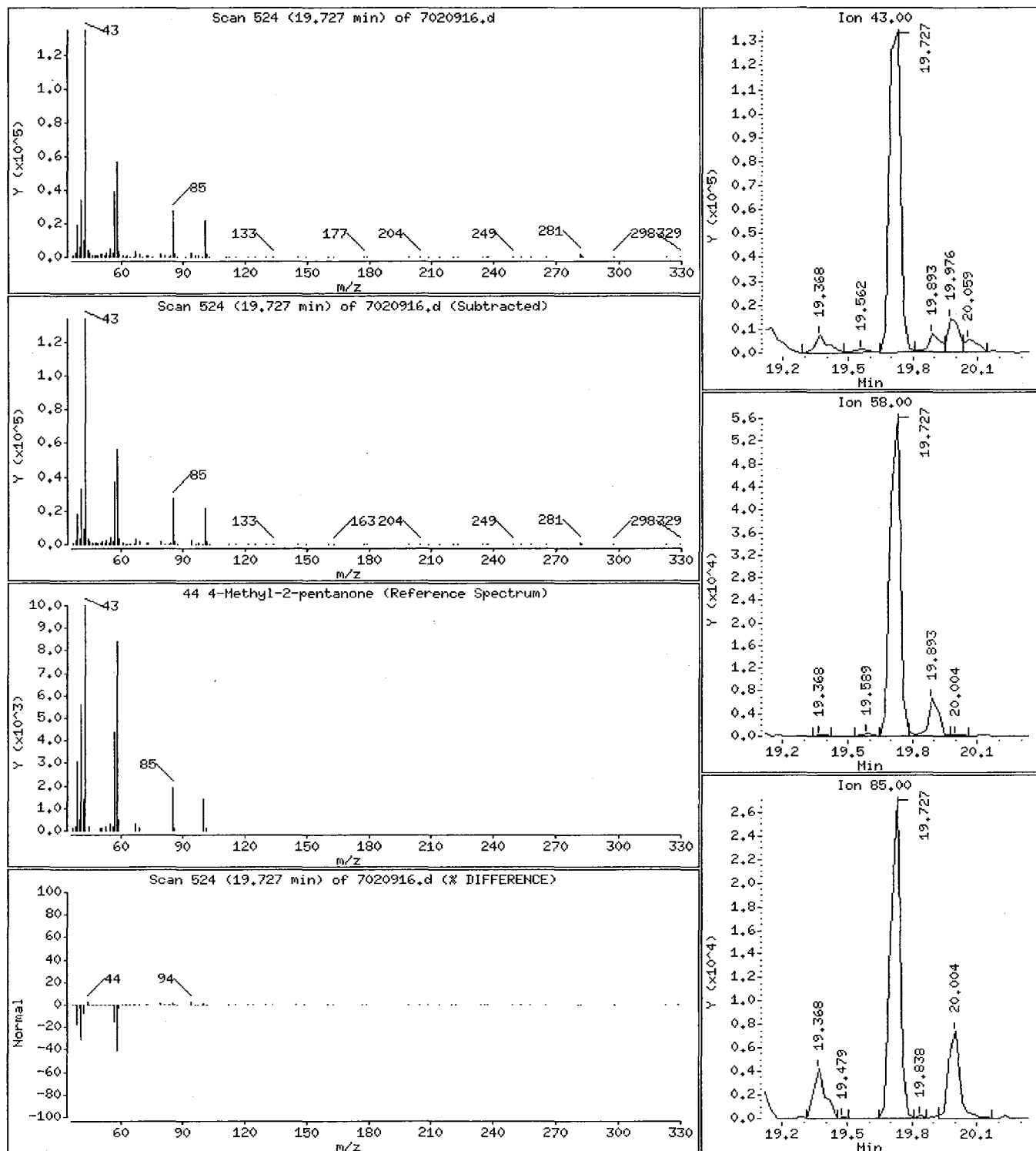
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 3.607 PPBW



0357

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

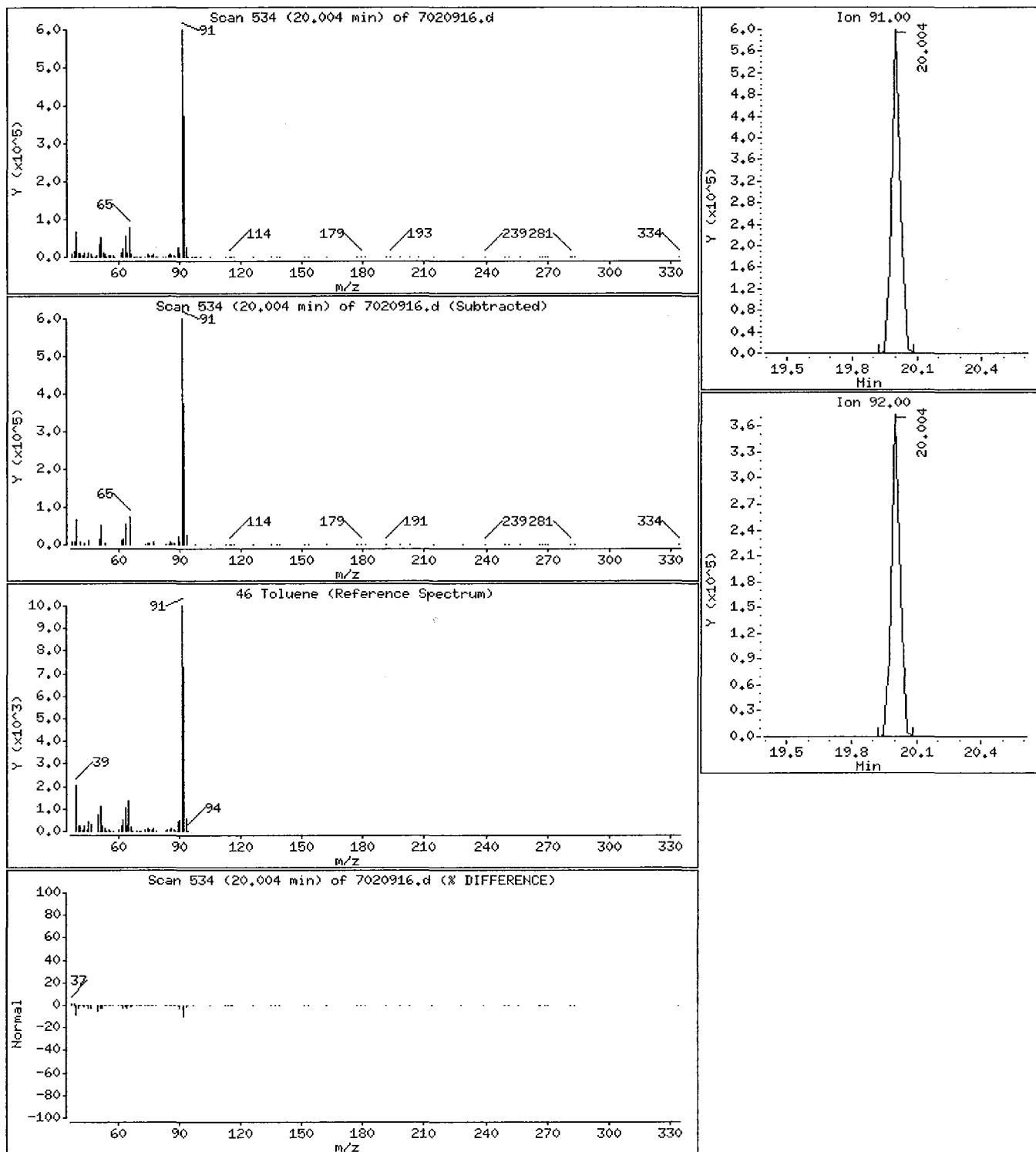
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 6,869 PPBV



0358

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

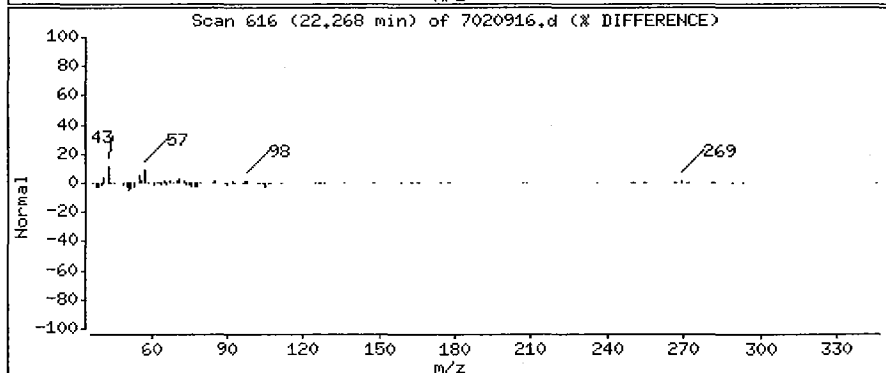
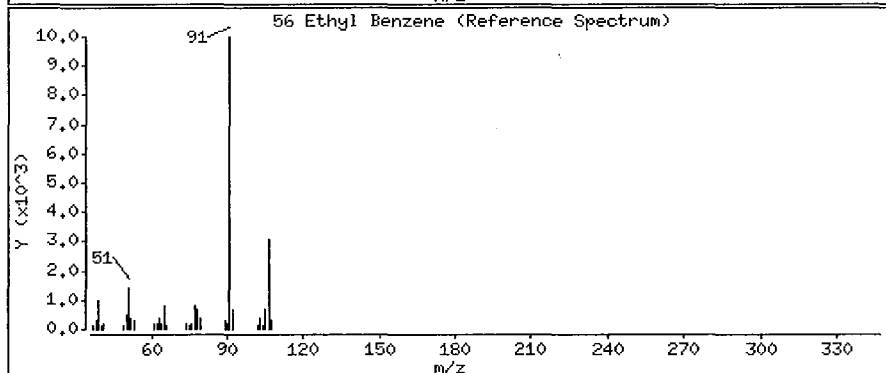
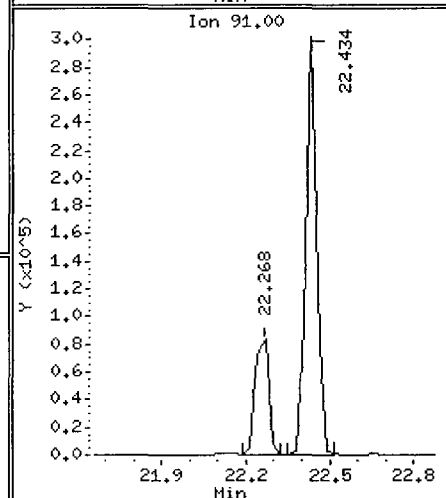
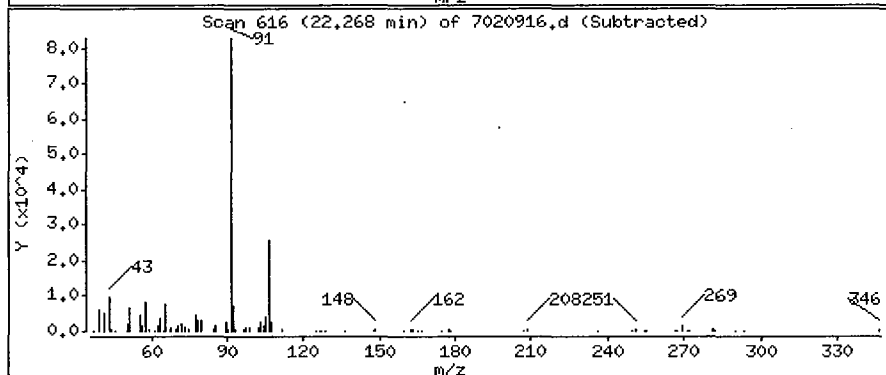
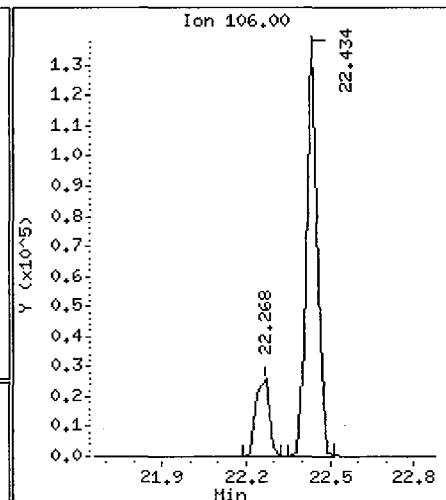
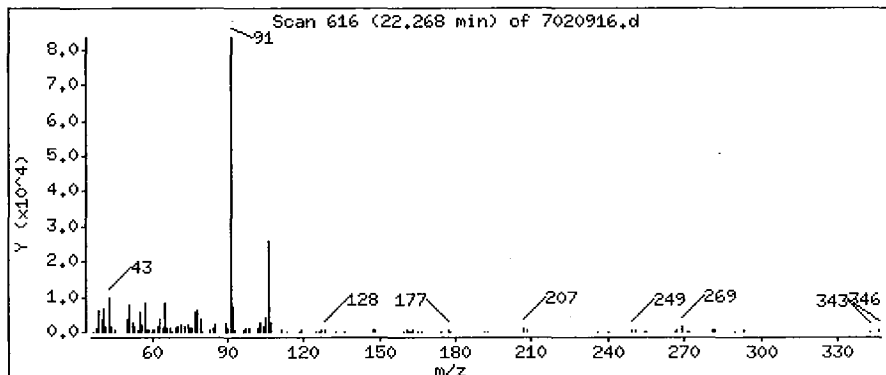
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 1.018 PPBV



0359

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

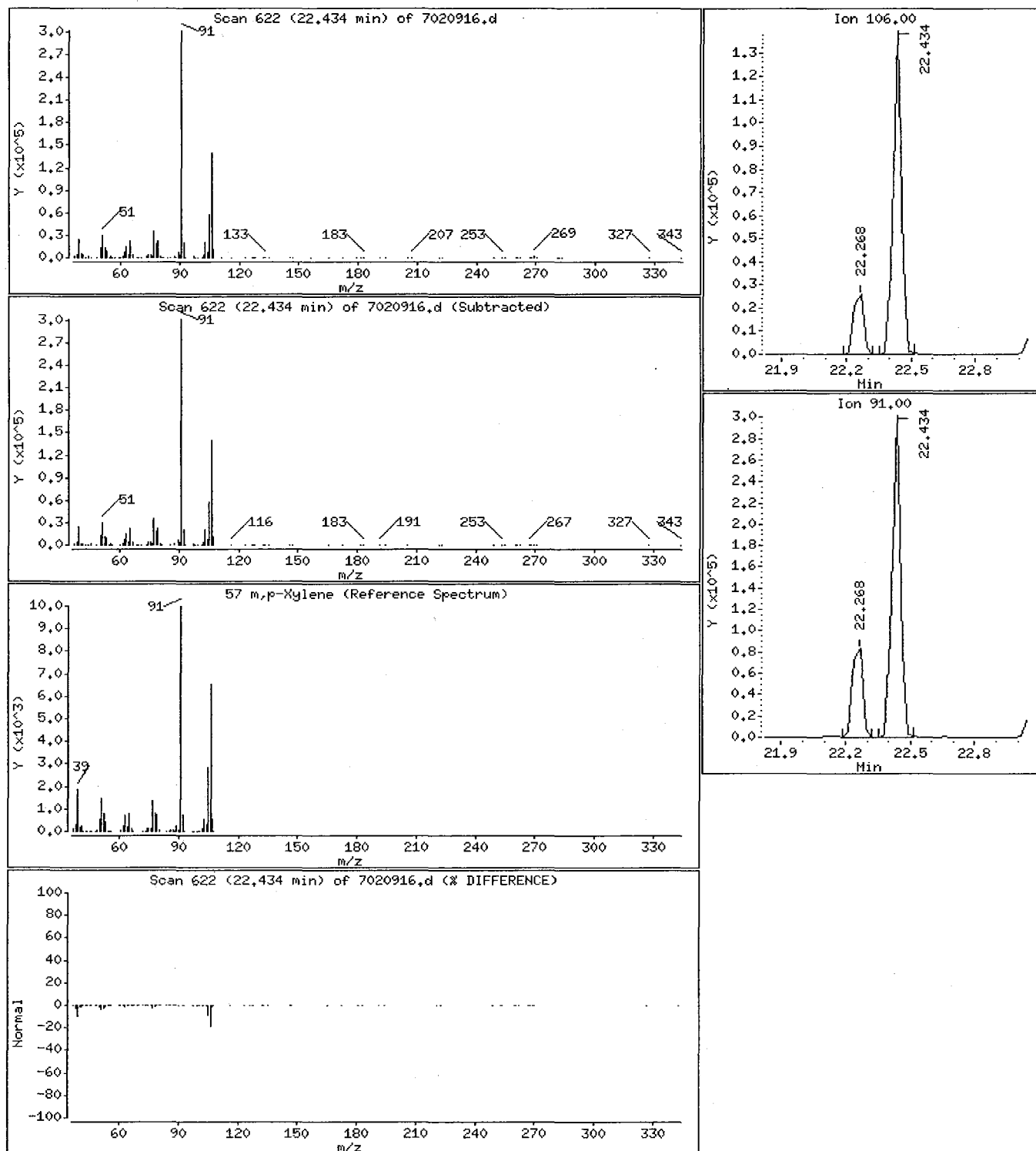
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 3.603 PPBV



0360

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

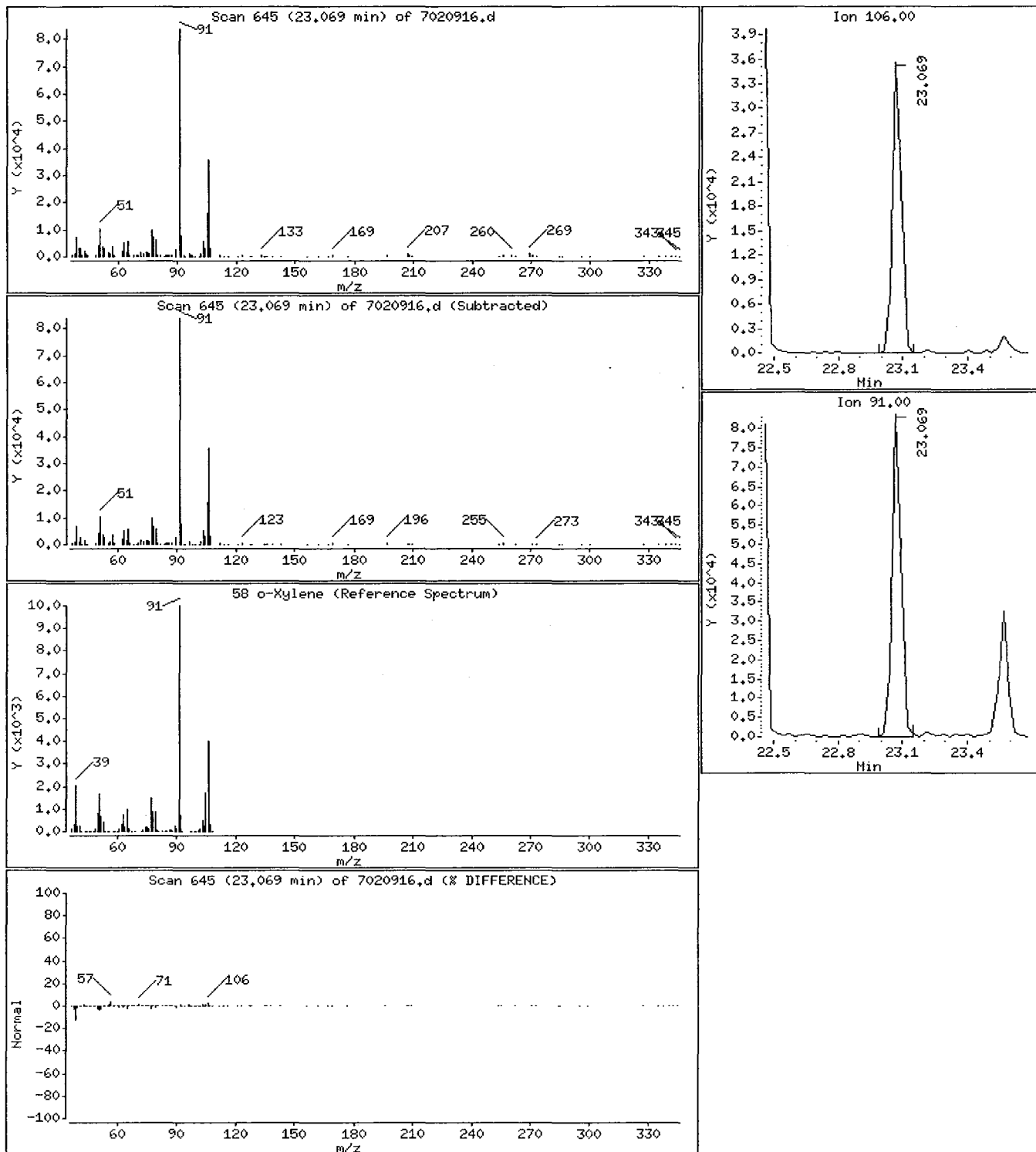
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 1.222 PPBV



0361

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

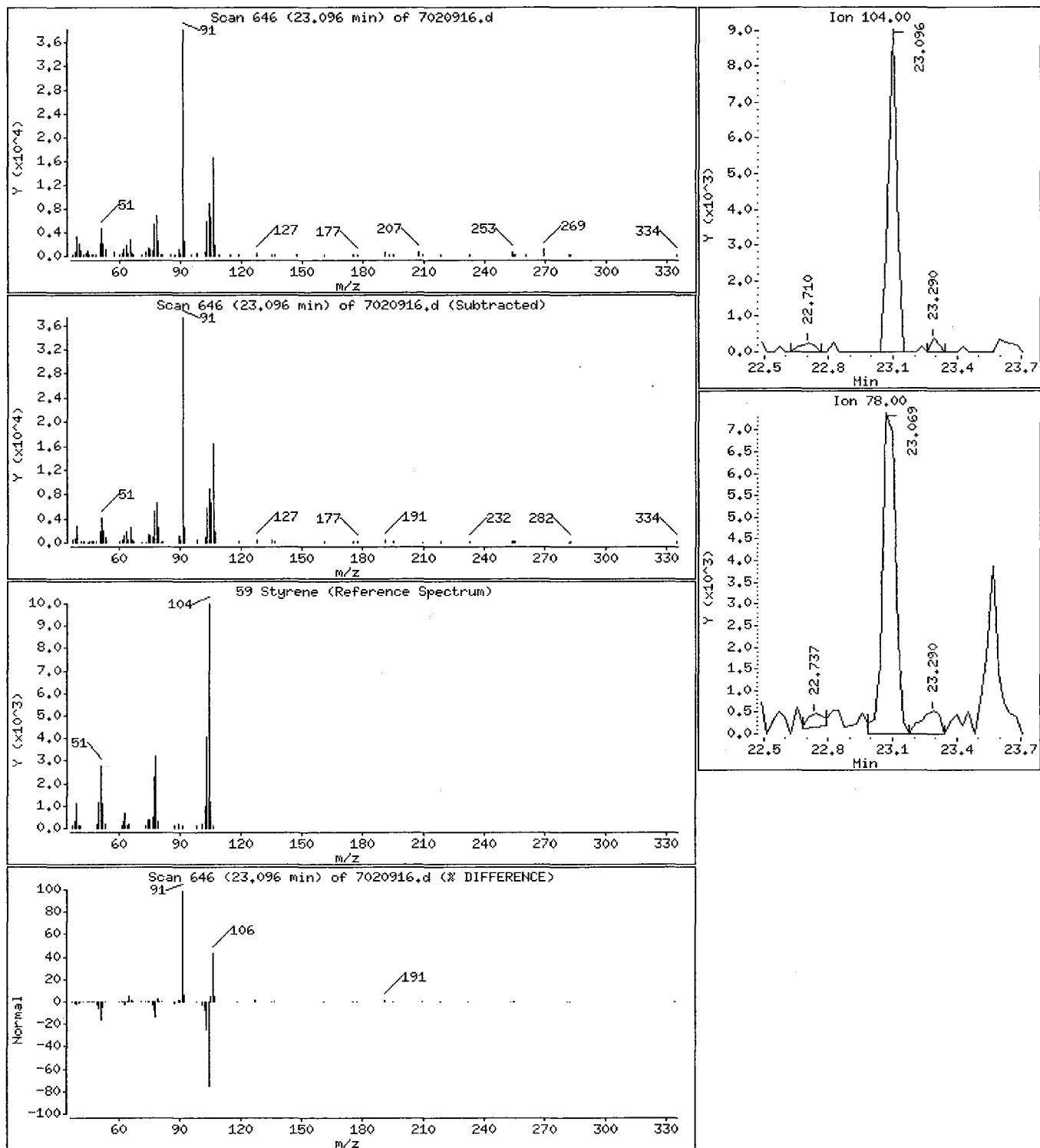
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1972 PPBV



0362

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

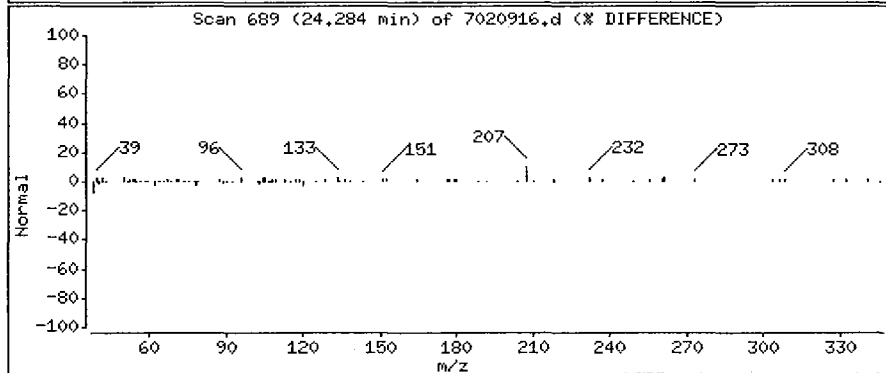
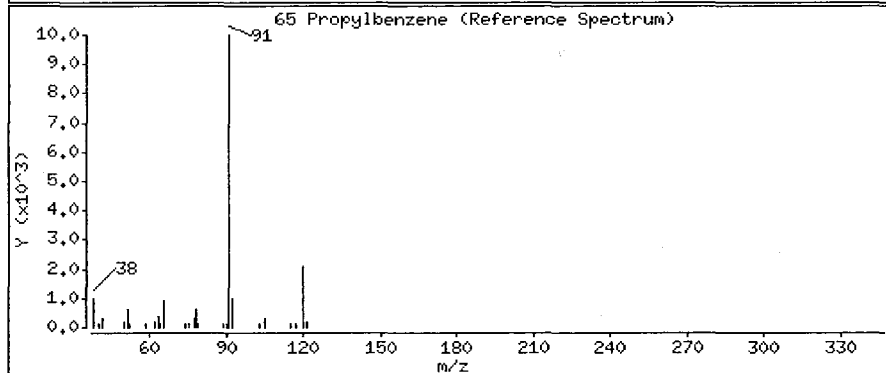
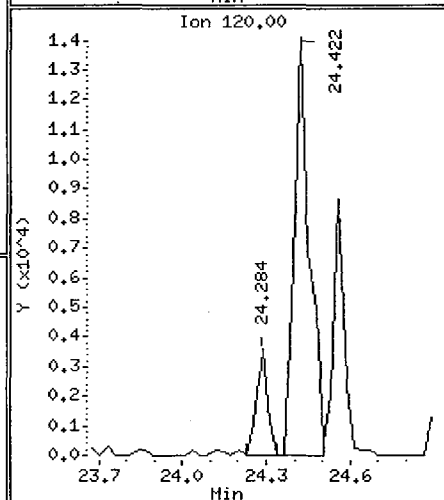
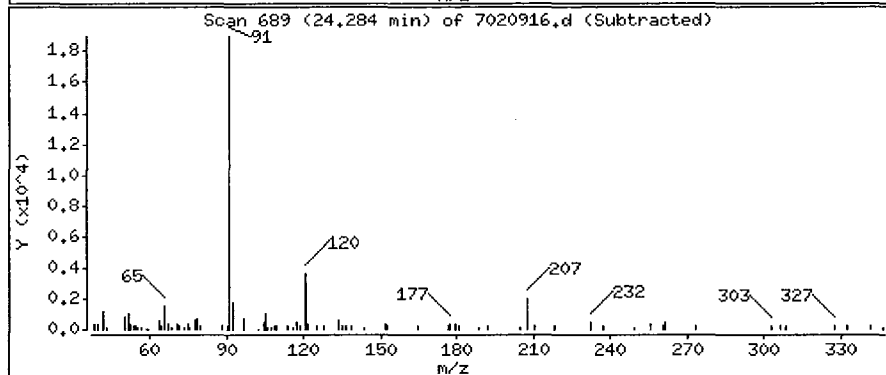
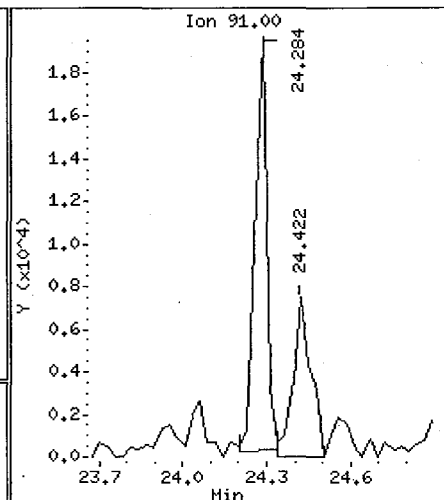
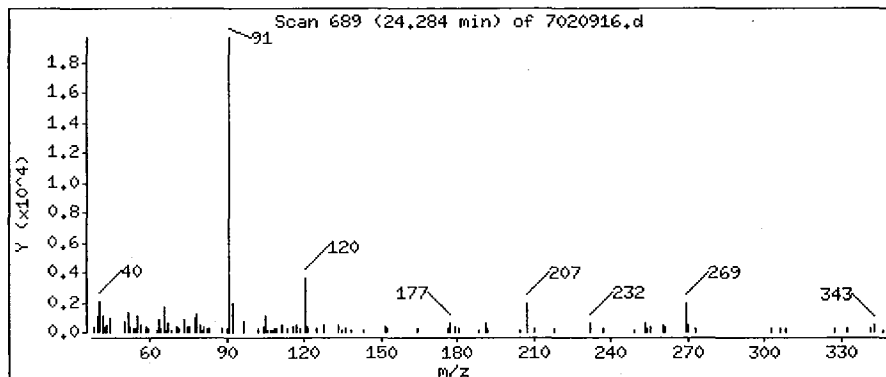
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.2031 PPBV



0363

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

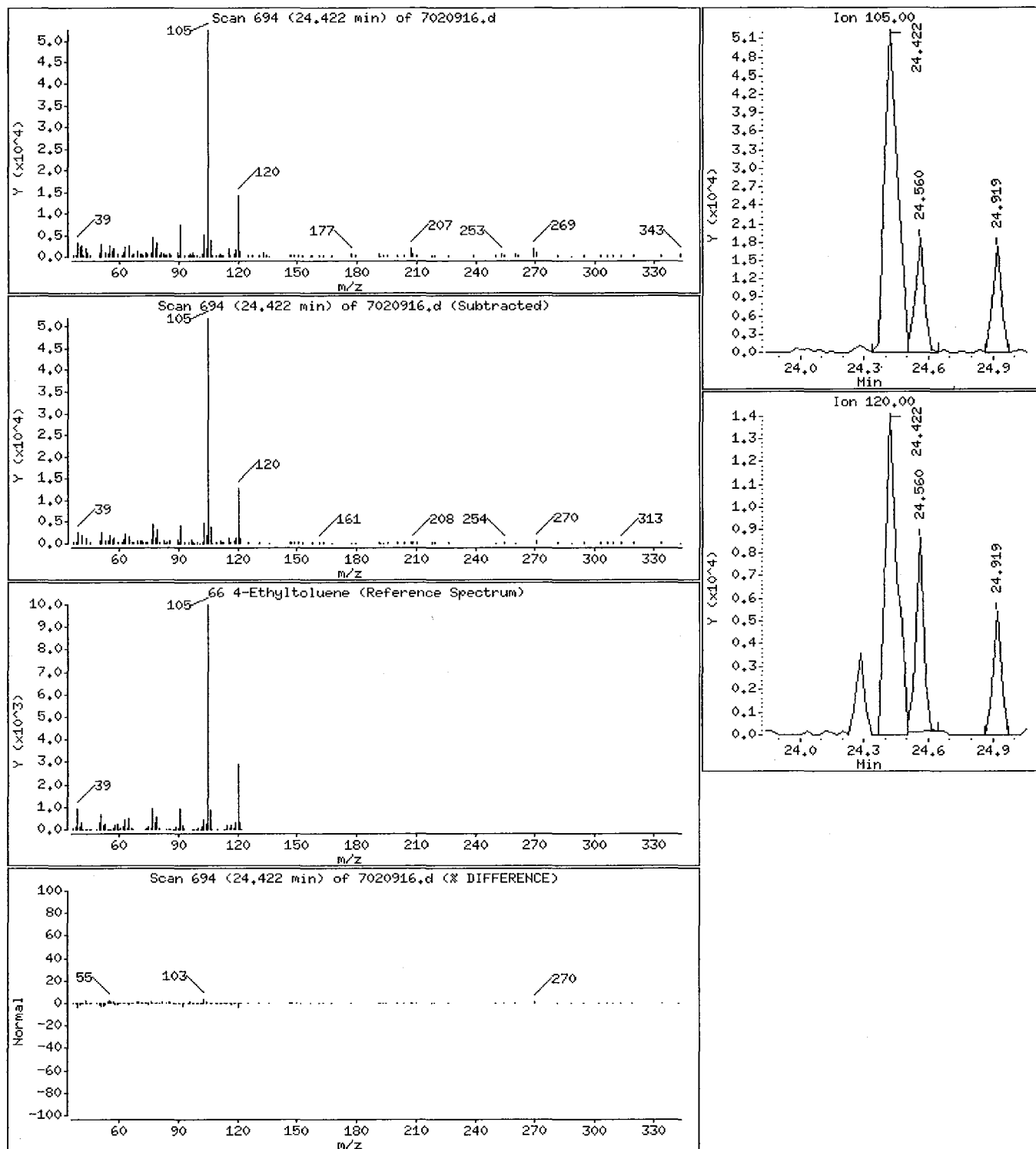
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 1.013 PPBV



0364

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

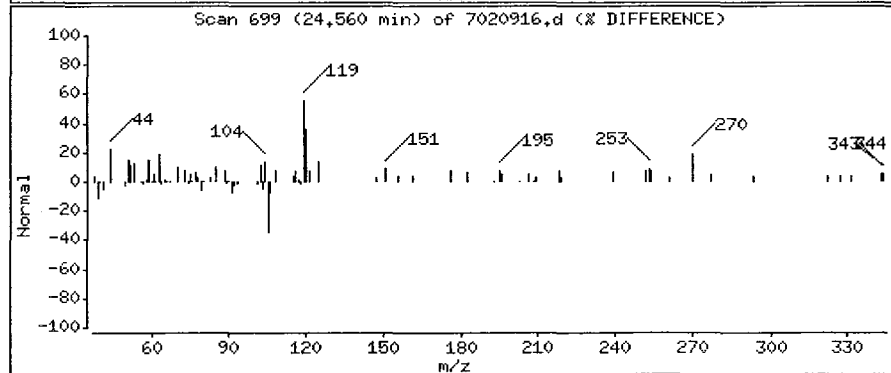
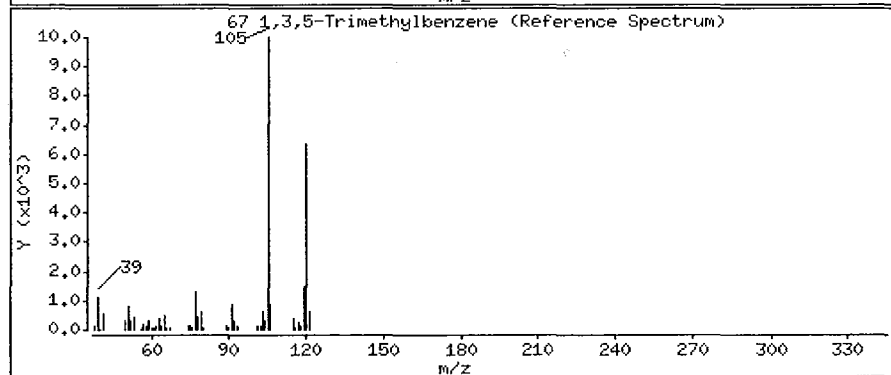
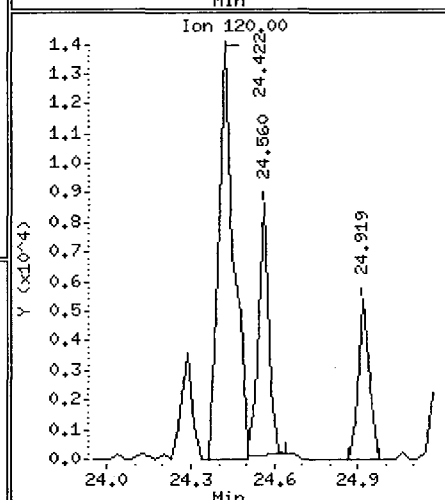
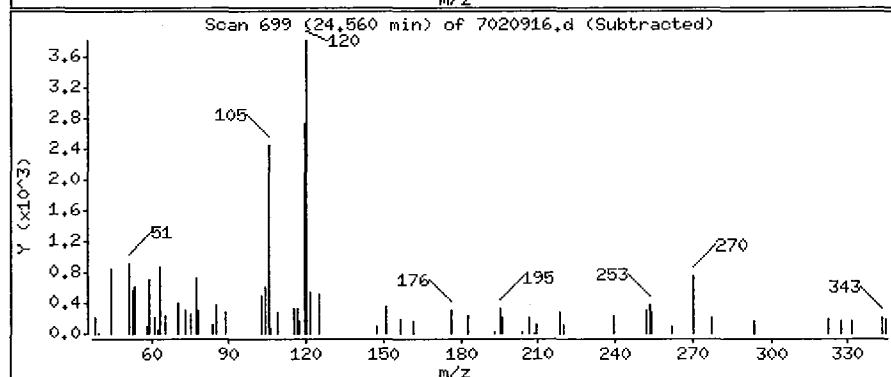
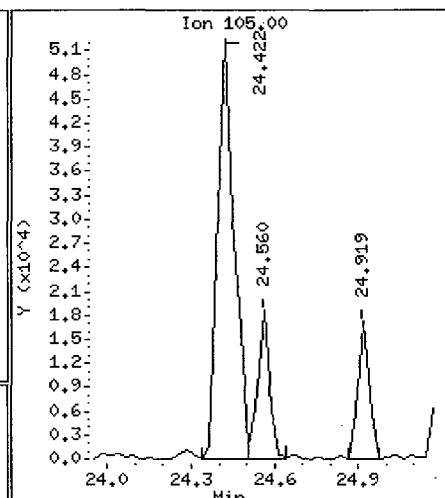
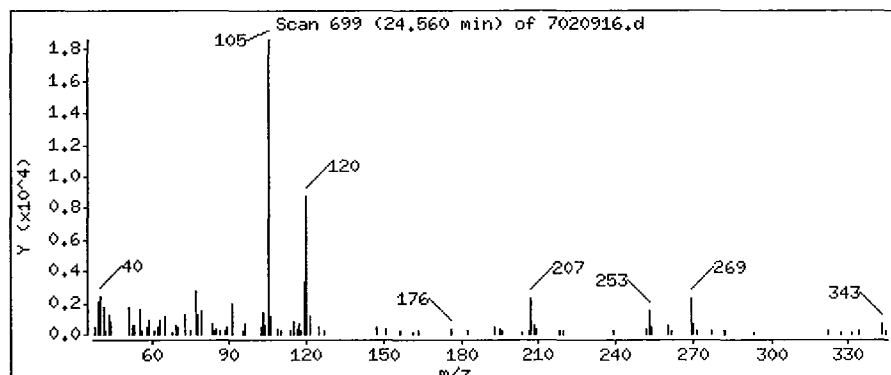
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2870 PPBV



0365

Date : 09-FEB-2005 17:38

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 25275

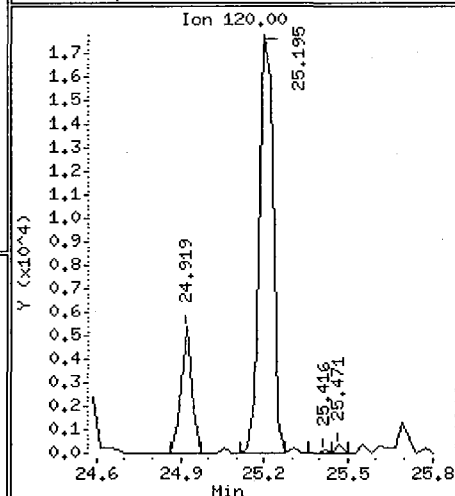
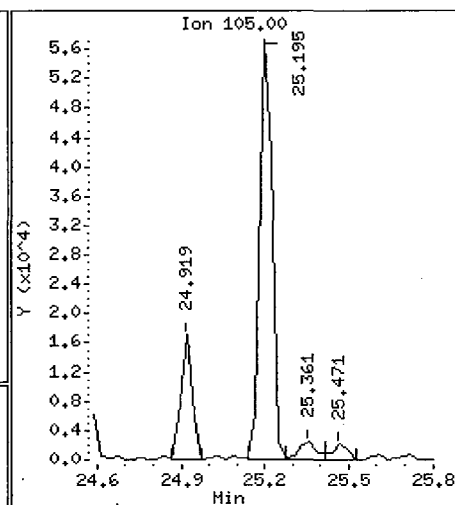
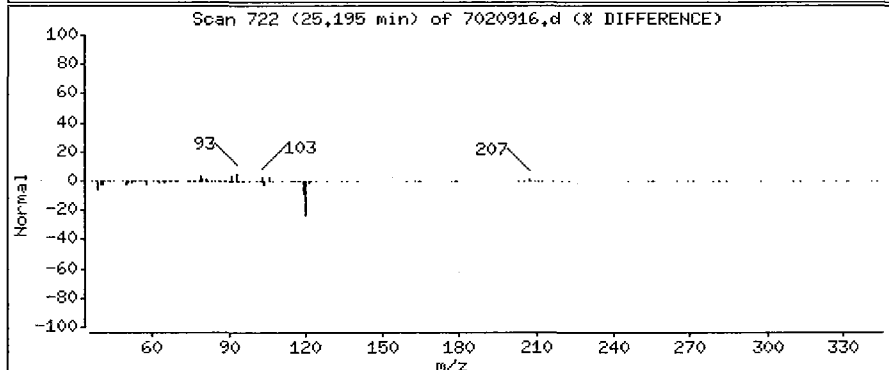
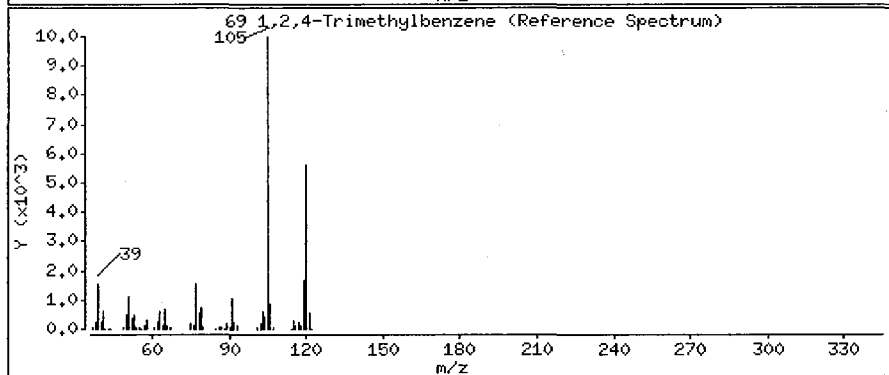
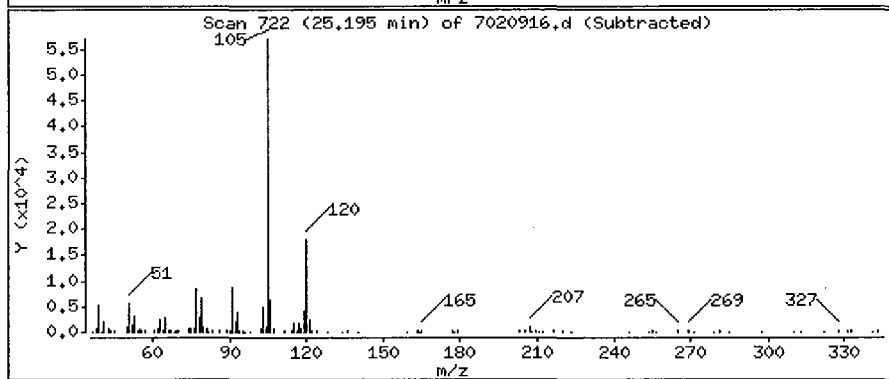
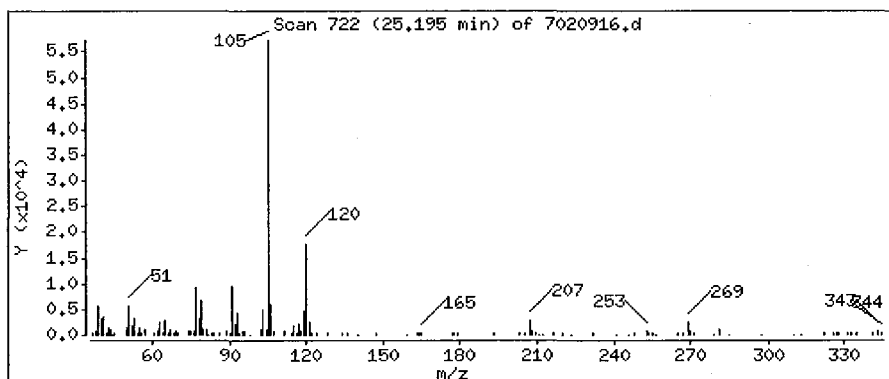
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.9683 PPBV



0366

SCOEPAA00032038

AIR TOXICS LTD.

SAMPLE NAME: #10, Central Facilities Bldg, Compressor Rm

ID#: 0502032-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020914	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 04:21 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.84	0.84	4.2
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.45	0.35	0.93
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	1.1	0.96	6.3
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.065 J	0.83	0.32 J
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.10 J	1.1	0.64 J
Benzene	0.17	1.7	0.55	5.5
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	2.1	0.64	8.0
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.55	0.74	2.4
m,p-Xylene	0.17	1.9	0.74	8.1
o-Xylene	0.17	0.70	0.74	3.0
Styrene	0.17	0.12 J	0.73	0.50 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.22	0.84	1.1
1,2,4-Trimethylbenzene	0.17	0.70	0.84	3.4
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.41	1.2	1.4
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	0.16 J	1.9	0.36 J
Acetone	0.86	3.0	2.0	7.1
Carbon Disulfide	0.86	0.085 J	2.7	0.26 J

AIR TOXICS LTD.

SAMPLE NAME: #10, Central Facilities Bldg, Compressor Rm

ID#: 0502032-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020914	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 04:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	2.2	2.1	5.4
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	1.0	2.5	3.1
Hexane	0.86	0.87	3.0	3.0
Tetrahydrofuran	0.86	0.12 J	2.5	0.34 J
Cyclohexane	0.86	0.50 J	2.9	1.7 J
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	1.0	3.5	4.1
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.65 J	4.2	3.2 J
Ethanol	0.86	3.7	1.6	7.0
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.43 J	3.5	1.7 J
Cumene	0.86	0.16 J	4.2	0.79 J
Propylbenzene	0.86	0.22 J	4.2	1.1 J
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020914.d
Lab Smp Id: 0502032-10A
Inj Date : 09-FEB-2005 16:21
Operator : nk
Smp Info : 500ml Can# 12079
Misc Info : 6.5"Hg-5psi,Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	

* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	434057	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	343244			26.96- 126.96	79.08	
16.331	16.331	(1.000)	49	790417			126.50- 226.50	182.10	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2017955	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	339441			0.00- 67.64	16.82	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1443060	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	851542			9.26- 109.26	59.01	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	957005	10.7049	10.705	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	441840			0.17- 100.17	46.17	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	96	1725336	10.0217	10.022	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	205209			0.00- 62.11	11.89	

0369

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1213323			22.24- 122.24	70.32

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.952	23.953	(1.082)	174	788776	10.5810	10.581	80.00- 120.00	100.00
23.952	23.953	(1.082)	95	1252324			97.68- 197.68	158.77
23.952	23.953	(1.082)	176	809341			43.78- 143.78	102.61

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	173176	0.49221	0.8417	80.00- 120.00	100.00
5.975	5.947	(0.366)	87	58540			0.00- 81.67	33.80

4 Chloromethane						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	26727	0.26349	0.4506	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	9586			0.00- 84.65	35.87

7 1,3-Butadiene						CAS #: 106-99-0		
8.295	8.295	(0.508)	54	8721	0.09431	0.1613	80.00- 120.00	100.00(a)
8.295	8.295	(0.508)	39	9747			48.03- 148.03	111.76

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	199420	0.65183	1.115	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	130512			13.78- 113.78	65.45

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	93627	2.18037	3.728	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	22585			0.00- 76.71	24.12
12.050	12.050	(0.738)	46	42979			0.00- 90.17	45.90

16 Acetone						CAS #: 67-64-1		
12.851	12.824	(0.787)	43	399501	1.74668	2.987	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	110826			0.00- 78.78	27.74

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	276406	1.27856	2.186	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	66463			0.00- 69.75	24.05
13.238	13.238	(0.811)	59	10748			0.00- 53.72	3.89

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	14149	0.04981	0.08517	80.00- 120.00	100.00(a)

20 Methylene Chloride						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	21513	0.23768	0.4064	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	25856			111.57- 211.57	120.19
13.735	13.735	(0.841)	51	9001			0.00- 93.42	41.84

0370

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL		FINAL		RATIO
					(PPBV)	(PPBV)	TARGET	RANGE	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
24 Hexane					CAS #: 110-54-3				
14.563	14.563	(0.892)	57	87014	0.50734	0.8675	80.00-	120.00	100.00
14.563	14.563	(0.892)	43	75946			15.23-	115.23	87.28
14.563	14.563	(0.892)	86	12508			0.00-	65.23	14.37

28 2-Butanone					CAS #: 78-93-3				
15.972	15.972	(0.978)	72	29003	0.61192	1.046	80.00-	120.00	100.00
15.972	15.972	(0.978)	43	166461			1046.10-	1146.10	573.94
15.972	15.972	(0.978)	57	13029			0.00-	89.21	44.92

23 Tetrahydrofuran					CAS #: 109-99-9				
16.331	16.331	(1.000)	42	8917	0.06780	0.1159	80.00-	120.00	100.00(a)
16.331	16.331	(1.000)	71	1083			0.00-	82.39	12.15
16.358	16.331	(1.002)	72	2625			0.00-	86.54	29.44

30 Chloroform					CAS #: 67-66-3				
16.413	16.414	(1.005)	83	7881	0.03796	0.06490	80.00-	120.00	100.00(a)
16.413	16.414	(1.005)	85	3865			14.01-	114.01	49.04

31 Cyclohexane					CAS #: 110-82-7				
16.662	16.662	(1.020)	84	27794	0.29308	0.5012	80.00-	120.00	100.00(a)
16.662	16.662	(1.020)	56	109441			93.37-	193.37	393.76
16.662	16.662	(1.020)	41	73369			30.80-	130.80	263.97

33 Carbon Tetrachloride					CAS #: 56-23-5				
16.855	16.883	(1.032)	119	9320	0.05979	0.1022	80.00-	120.00	100.00(a)
16.883	16.883	(1.034)	117	9431			62.01-	162.01	101.19

35 Benzene					CAS #: 71-43-2				
17.214	17.214	(0.967)	78	293289	1.00146	1.712	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	64505			0.00-	72.07	21.99

37 Heptane					CAS #: 142-82-5				
17.435	17.435	(0.980)	43	42621	0.24925	0.4262	80.00-	120.00	100.00(a)
17.435	17.435	(0.980)	57	22070			1.42-	101.42	51.78
17.463	17.435	(0.981)	100	7215			0.00-	66.93	16.93

44 4-Methyl-2-pentanone					CAS #: 108-10-1				
19.727	19.727	(1.109)	43	111530	0.58958	1.008	80.00-	120.00	100.00
19.727	19.727	(1.109)	58	37592			0.00-	87.49	33.71
19.727	19.727	(1.109)	85	17170			0.00-	66.91	15.39

46 Toluene					CAS #: 108-88-3				
20.003	20.004	(1.124)	91	418599	1.24762	2.133	80.00-	120.00	100.00
20.003	20.004	(1.124)	92	269516			11.18-	111.18	64.39

0371

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				(PPBV)	(PPBV)	(PPBV)		
=====								
56 Ethyl Benzene						CAS #: 100-41-4		
22.268	22.268	(1.006)	106	38033	0.32100	0.5489	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	124826			294.68- 394.68	328.20

57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	158504	1.09382	1.870	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	351864			168.06- 268.06	221.99

58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	48485	0.41085	0.7026	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	104109			186.48- 286.48	214.72

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	12493	0.06839	0.1169	80.00- 120.00	100.00(a)
23.096	23.096	(1.044)	78	12106			6.37- 106.37	96.90

62 Cumene						CAS #: 98-82-8		
23.621	23.621	(1.067)	105	27025	0.09433	0.1613	80.00- 120.00	100.00(a)
23.621	23.621	(1.067)	120	4667			0.00- 70.65	17.27

65 Propylbenzene						CAS #: 103-65-1		
24.284	24.284	(1.097)	91	51285	0.13009	0.2224	80.00- 120.00	100.00(a)
24.284	24.284	(1.097)	120	11156			0.00- 69.13	21.75

66 4-Ethyltoluene						CAS #: 622-96-8		
24.422	24.450	(1.104)	105	118896	0.37813	0.6466	80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	31943			0.00- 73.94	26.87

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	36471	0.13074	0.2236	80.00- 120.00	100.00
24.560	24.560	(1.110)	120	14822			0.00- 88.64	40.64

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	109343	0.40972	0.7006	80.00- 120.00	100.00
25.195	25.195	(1.139)	120	40365			0.00- 87.09	36.92

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0372

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020914.d
Lab Smp Id: 0502032-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi,Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	434057	-8.54
38 1,4-Difluorobenze	2234295	1340577	3128013	2017955	-9.68
54 Chlorobenzene-d5	1557243	934346	2180140	1443060	-7.33

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0373

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-09feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-10A	
Level: LOW	Operator: nk
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 6.5"Hg-5psi,Clayton	

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.705	107.05	70-130
\$ 45 Toluene-d8	10.000	10.022	100.22	70-130
\$ 63 Bromofluorobenzene	10.000	10.581	105.81	70-130

0374

Date : 09-FEB-2005 16:21

Client ID:

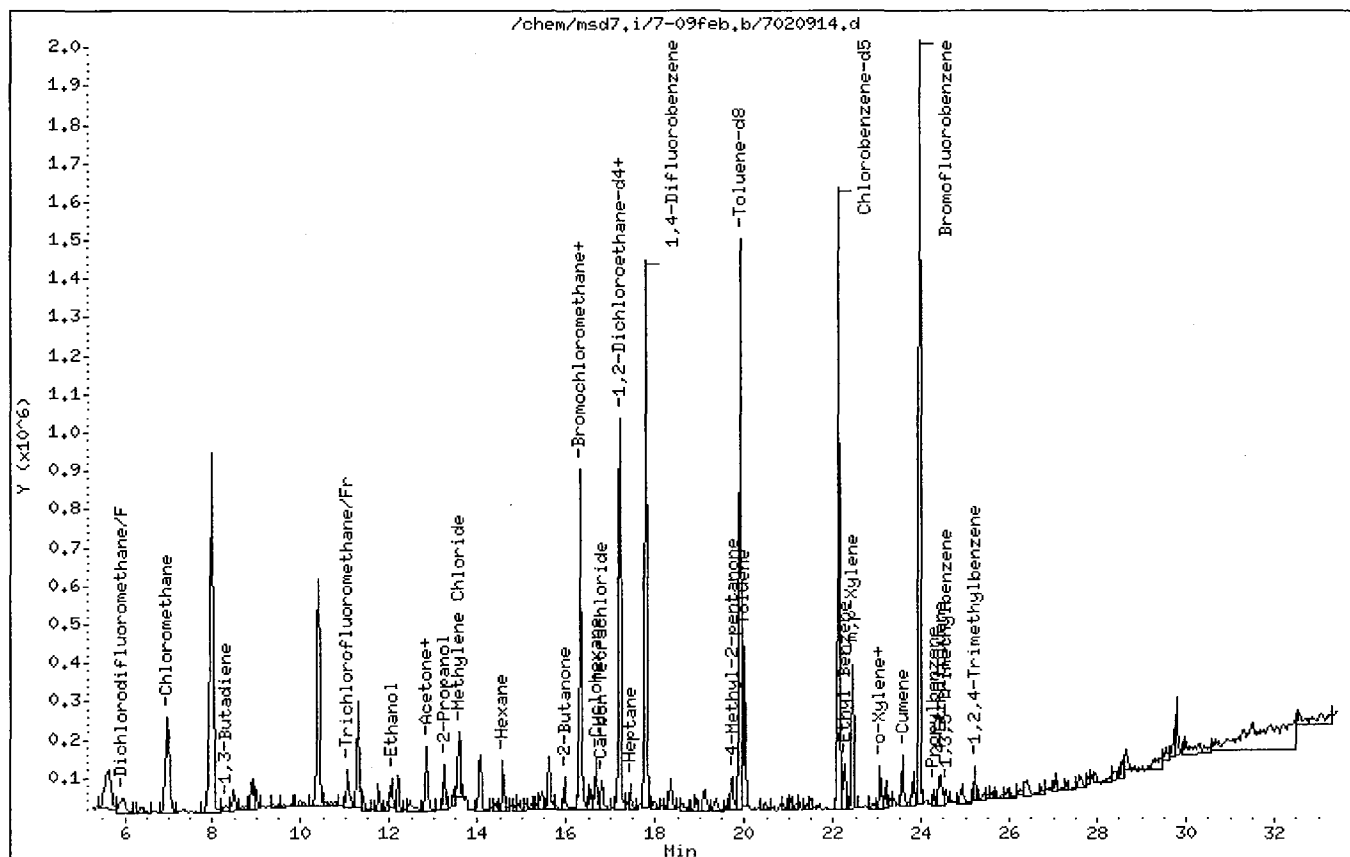
Instrument: msd7.i

Sample Info: 500ml Can# 12079

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0375

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

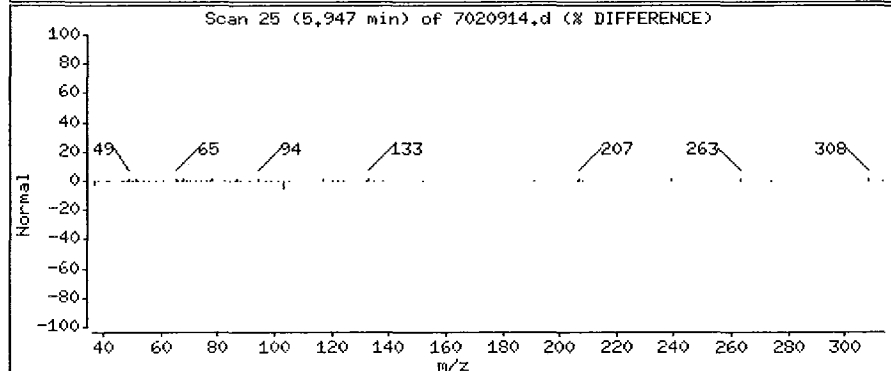
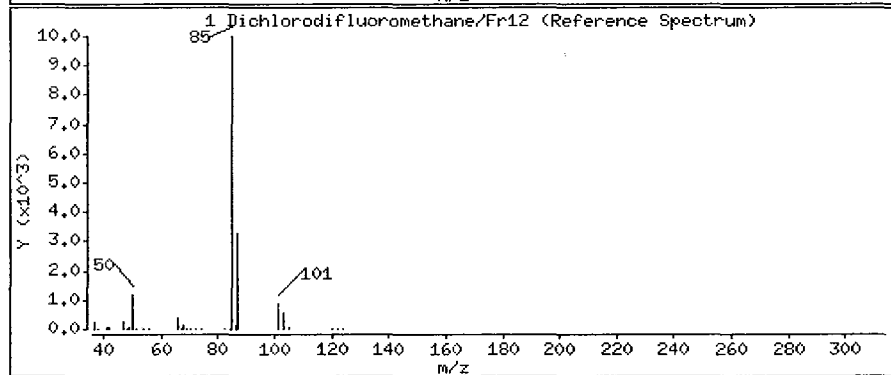
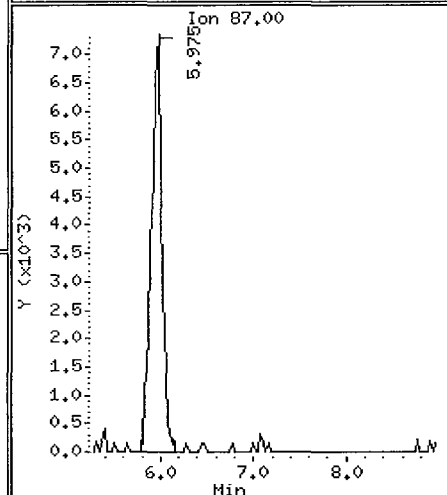
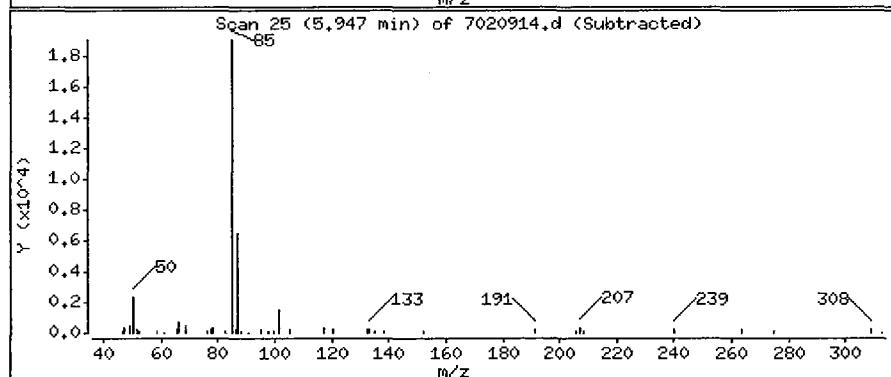
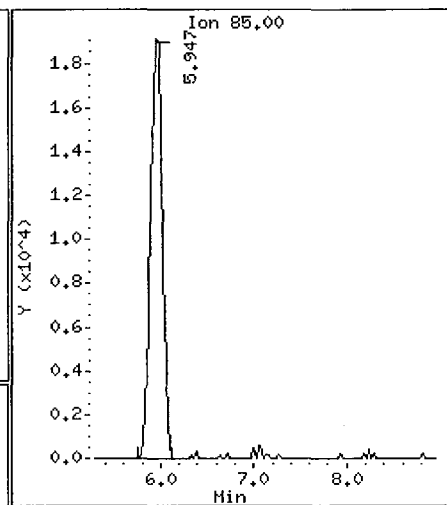
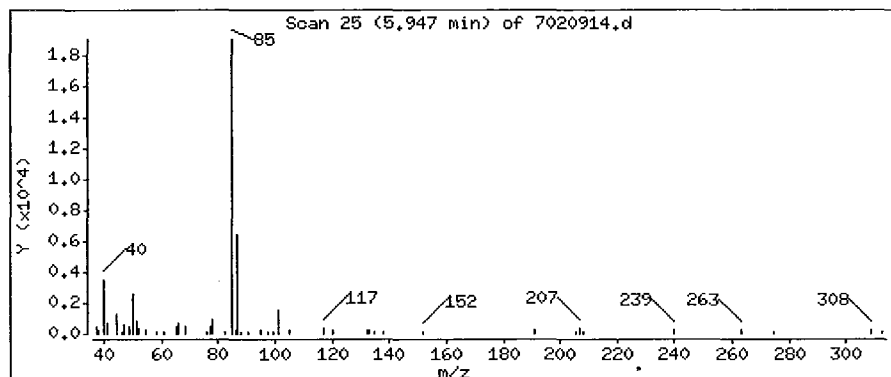
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.8417 PPBW



0376

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

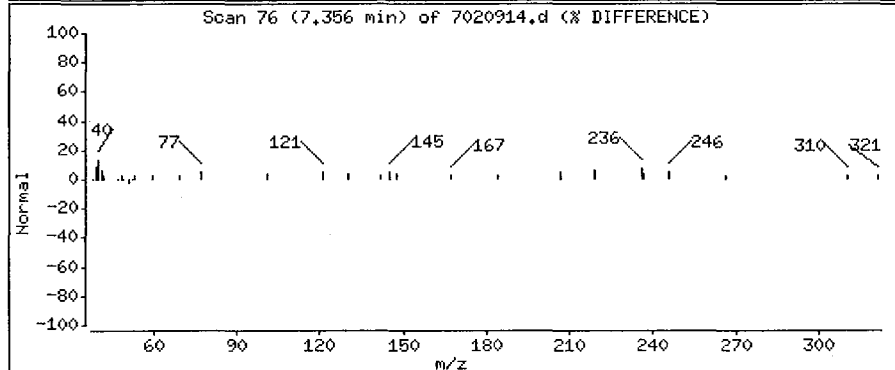
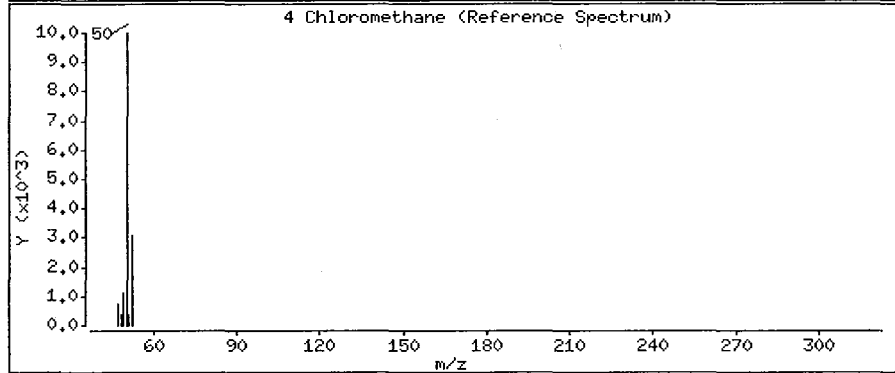
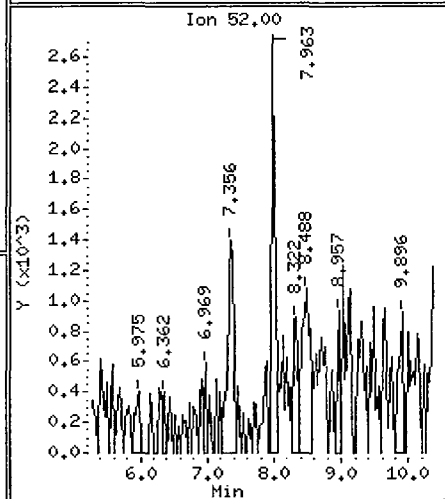
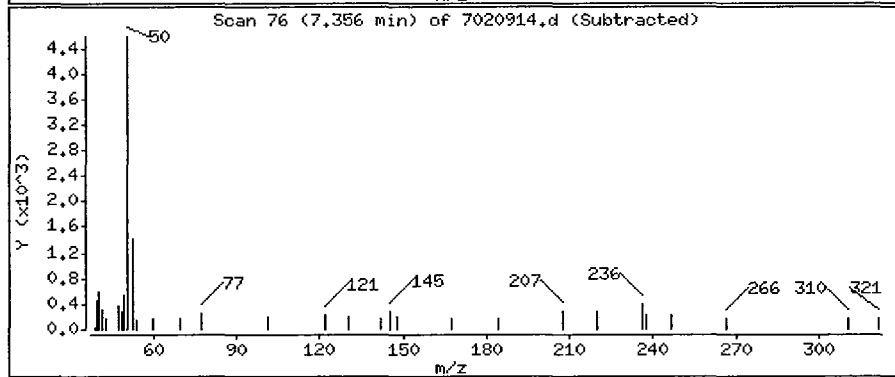
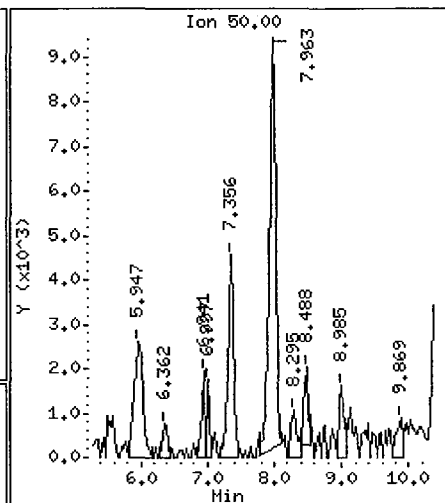
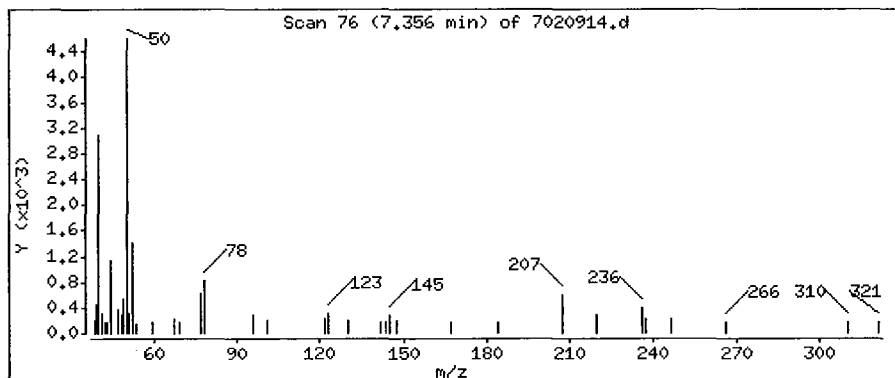
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4506 PPBV



0377

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

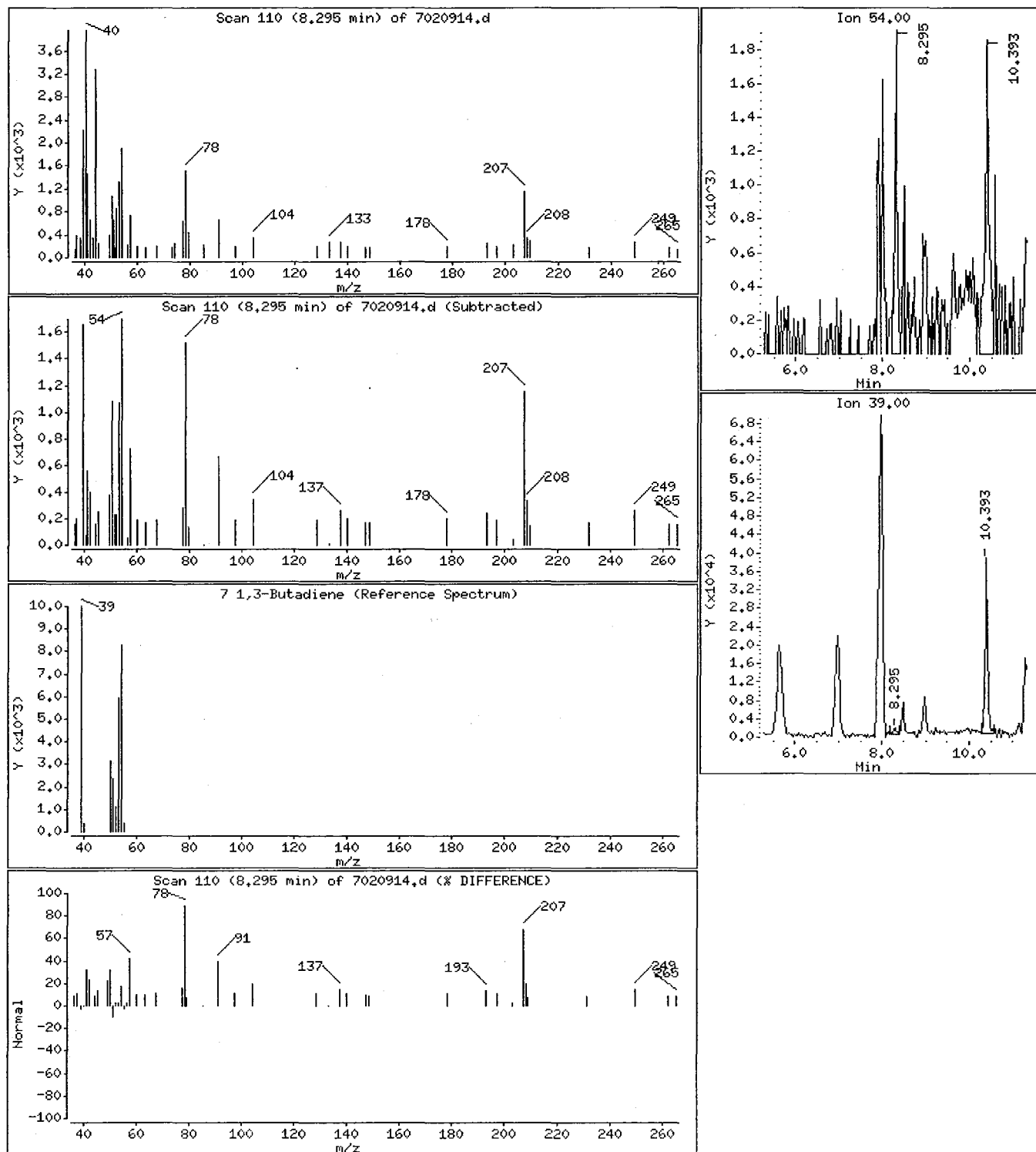
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1613 PPBV



0378

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

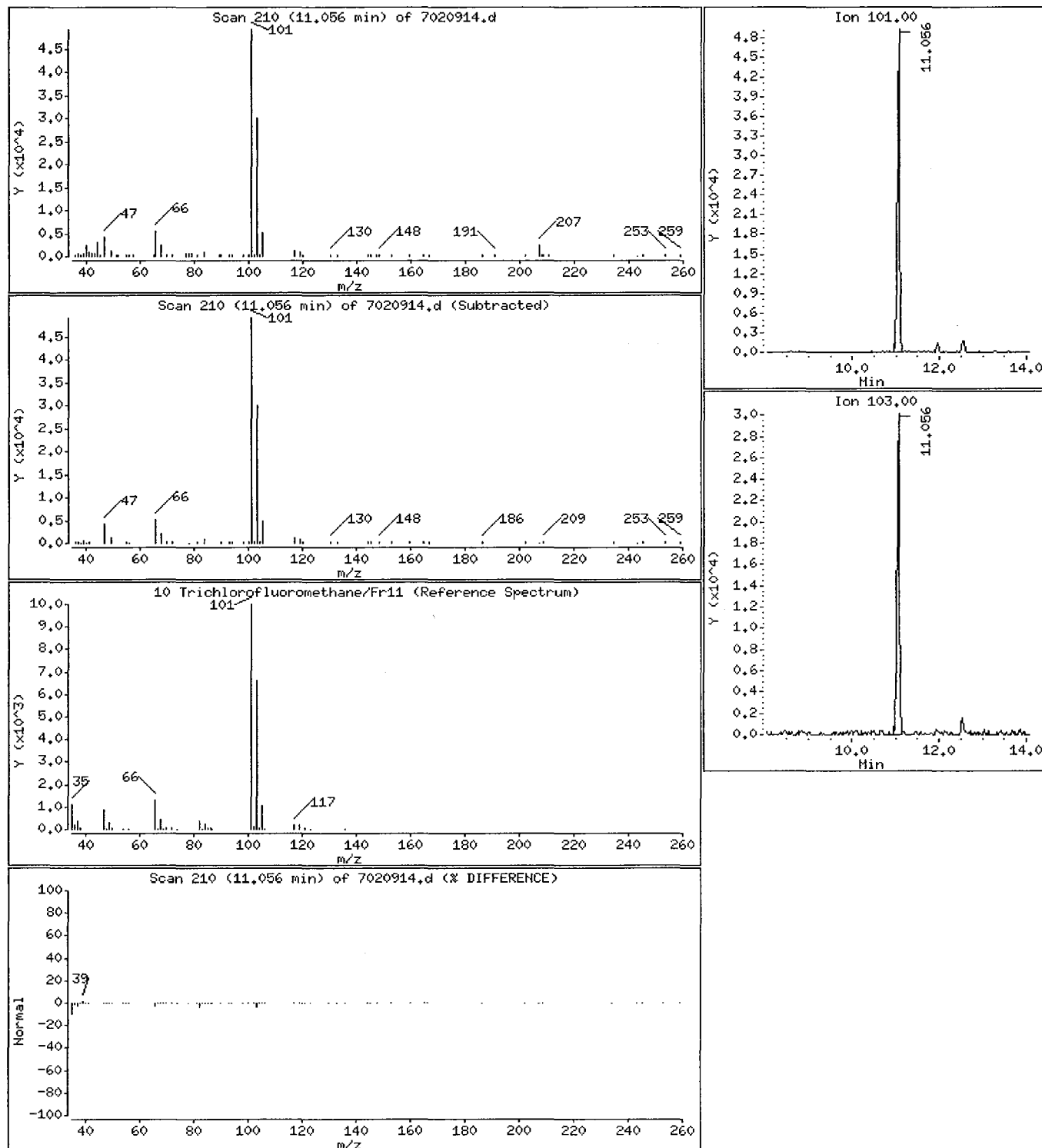
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 1.115 PPBV



0379

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

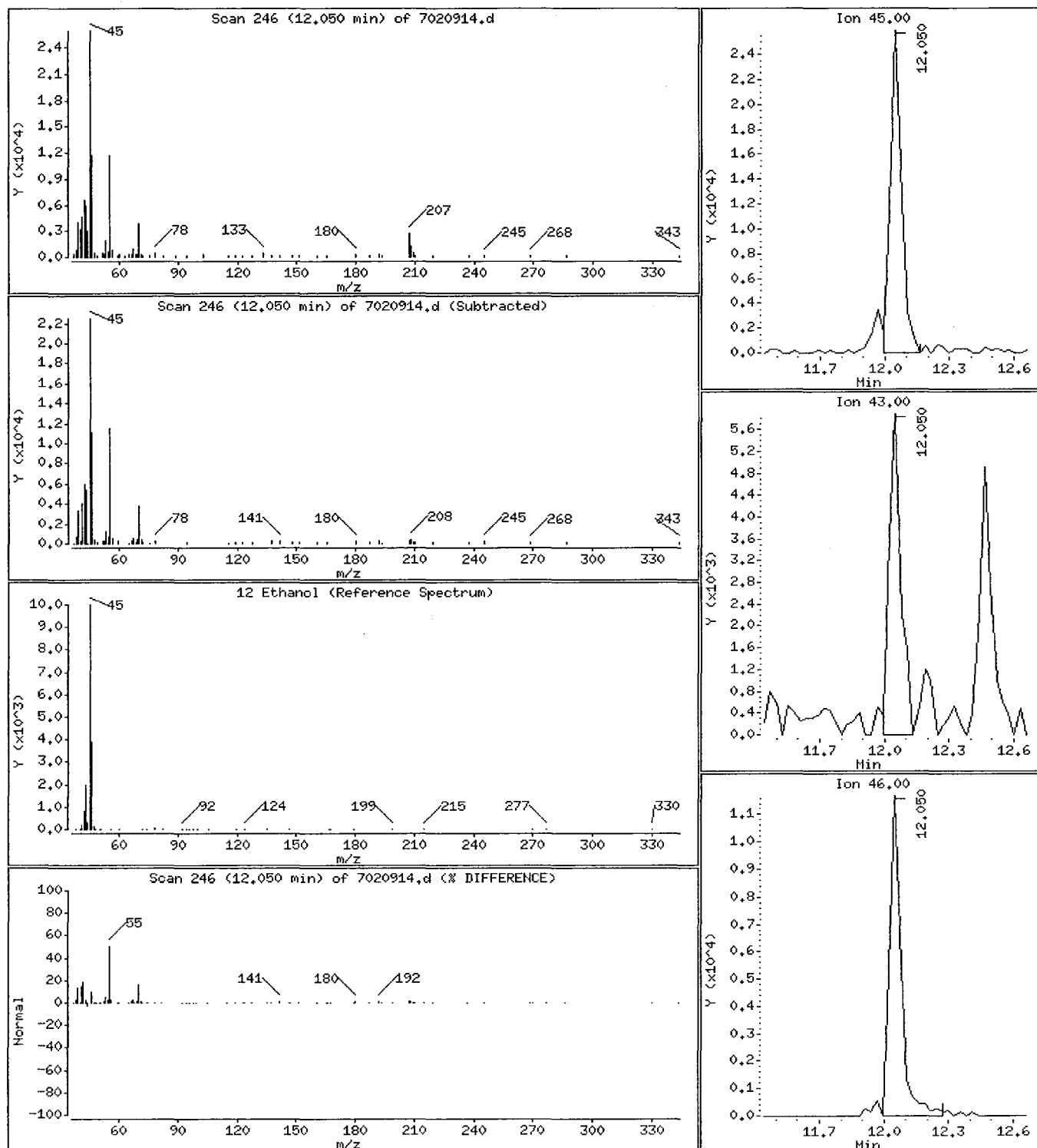
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 3,728 PPBV



0380

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

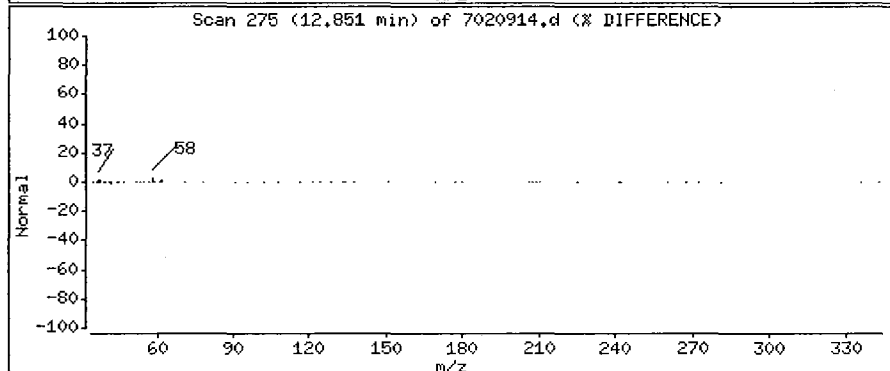
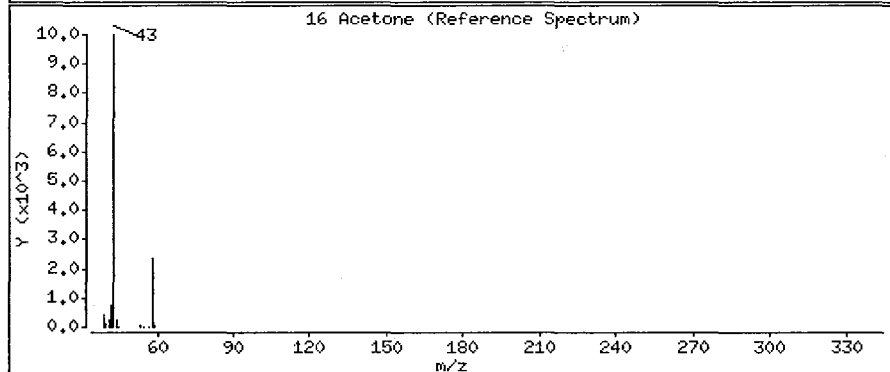
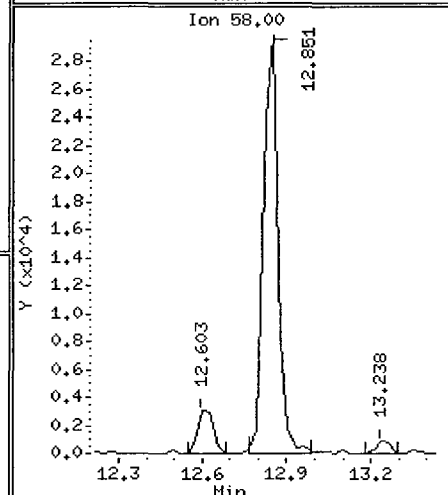
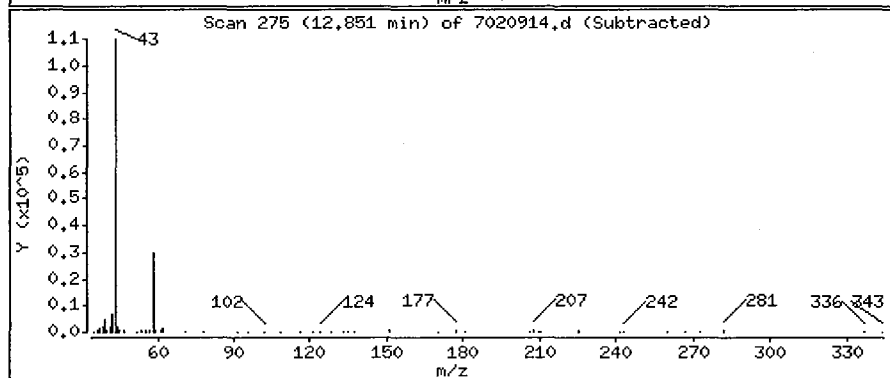
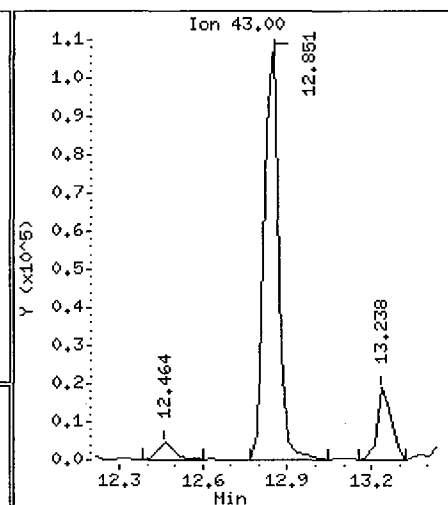
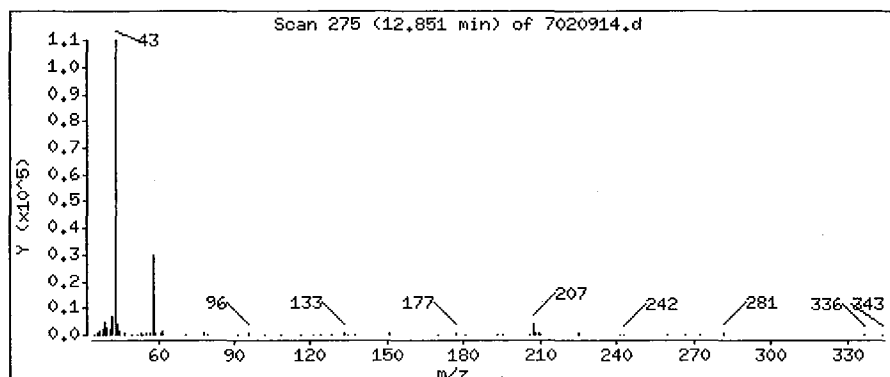
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 2.987 PPBV



0381

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

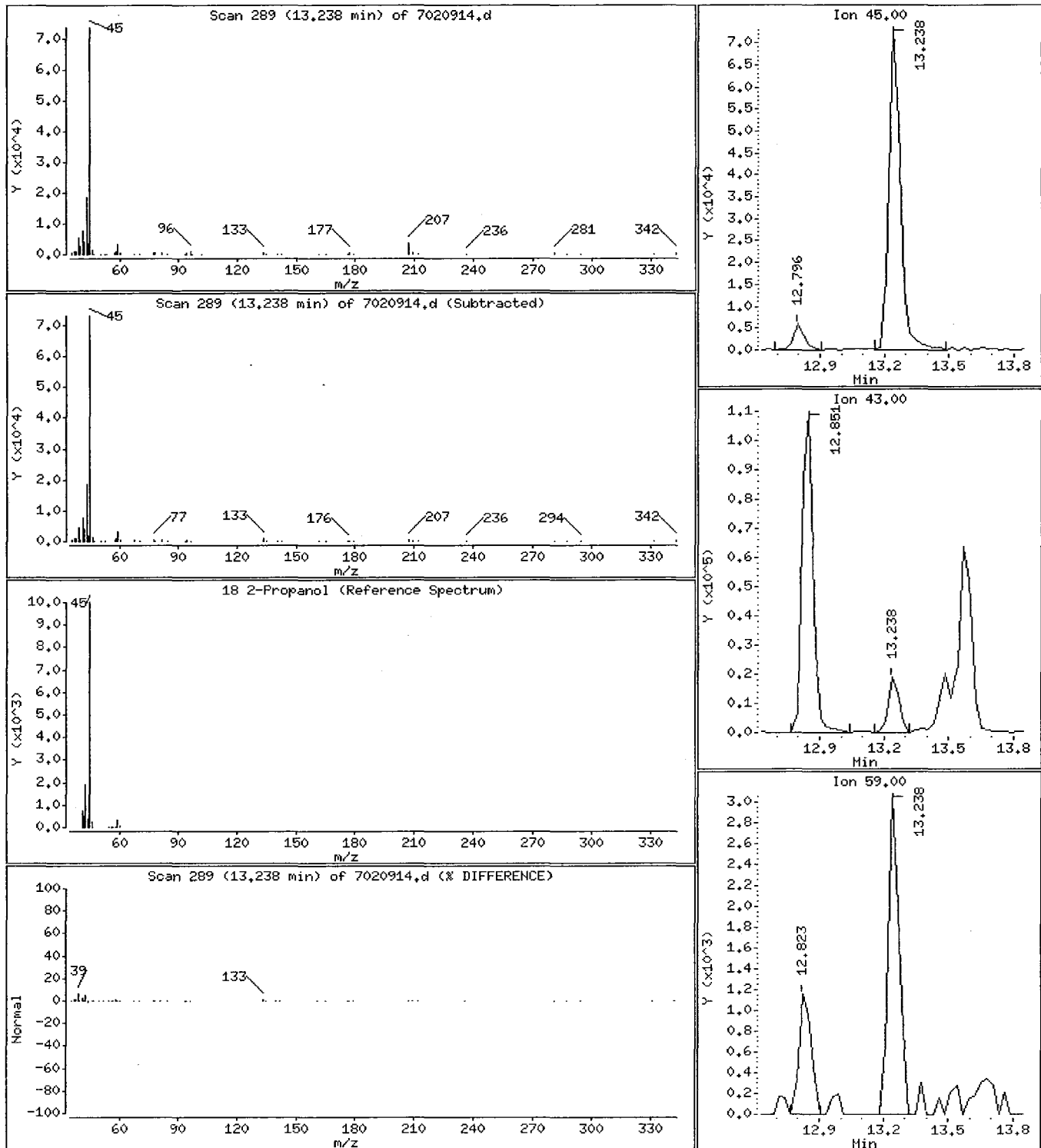
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 2.186 PPBV



0382

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

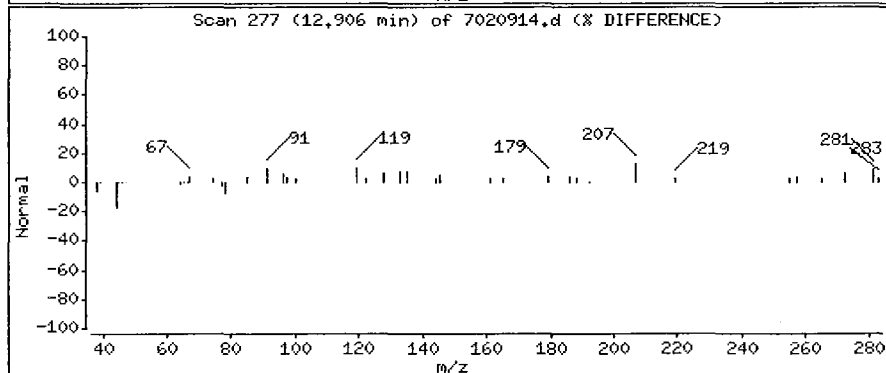
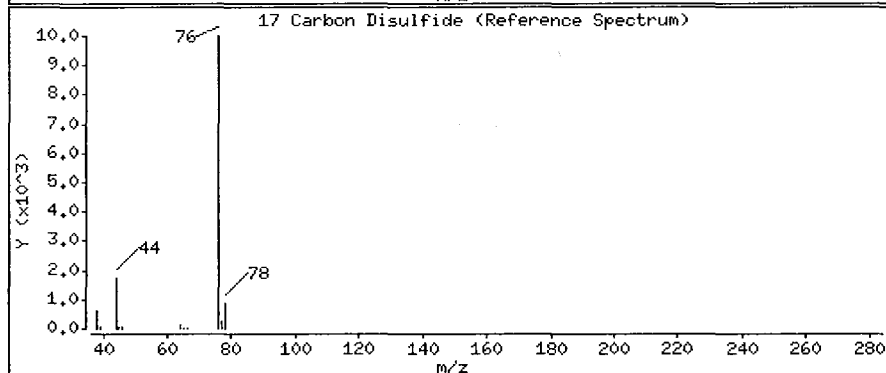
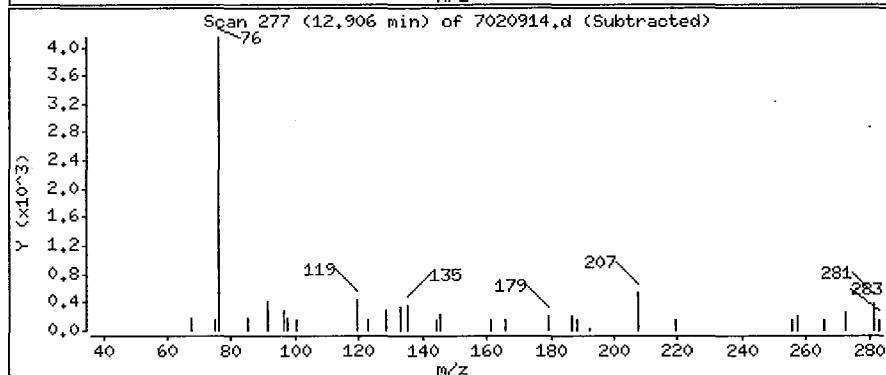
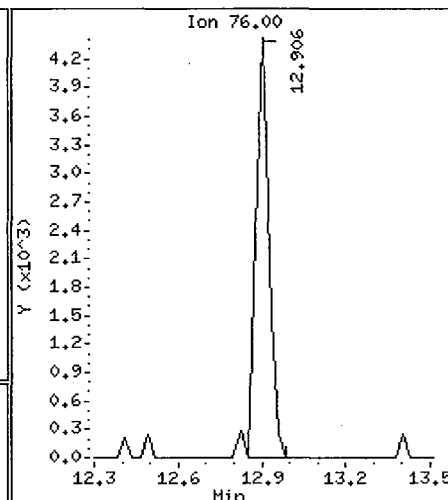
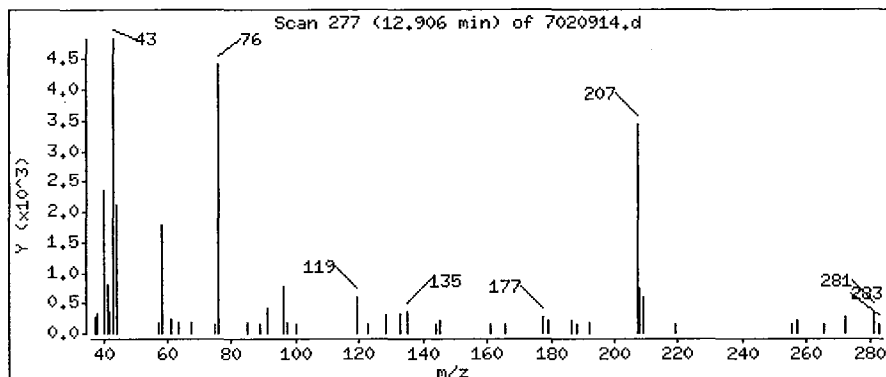
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.08517 PPBV



0383

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

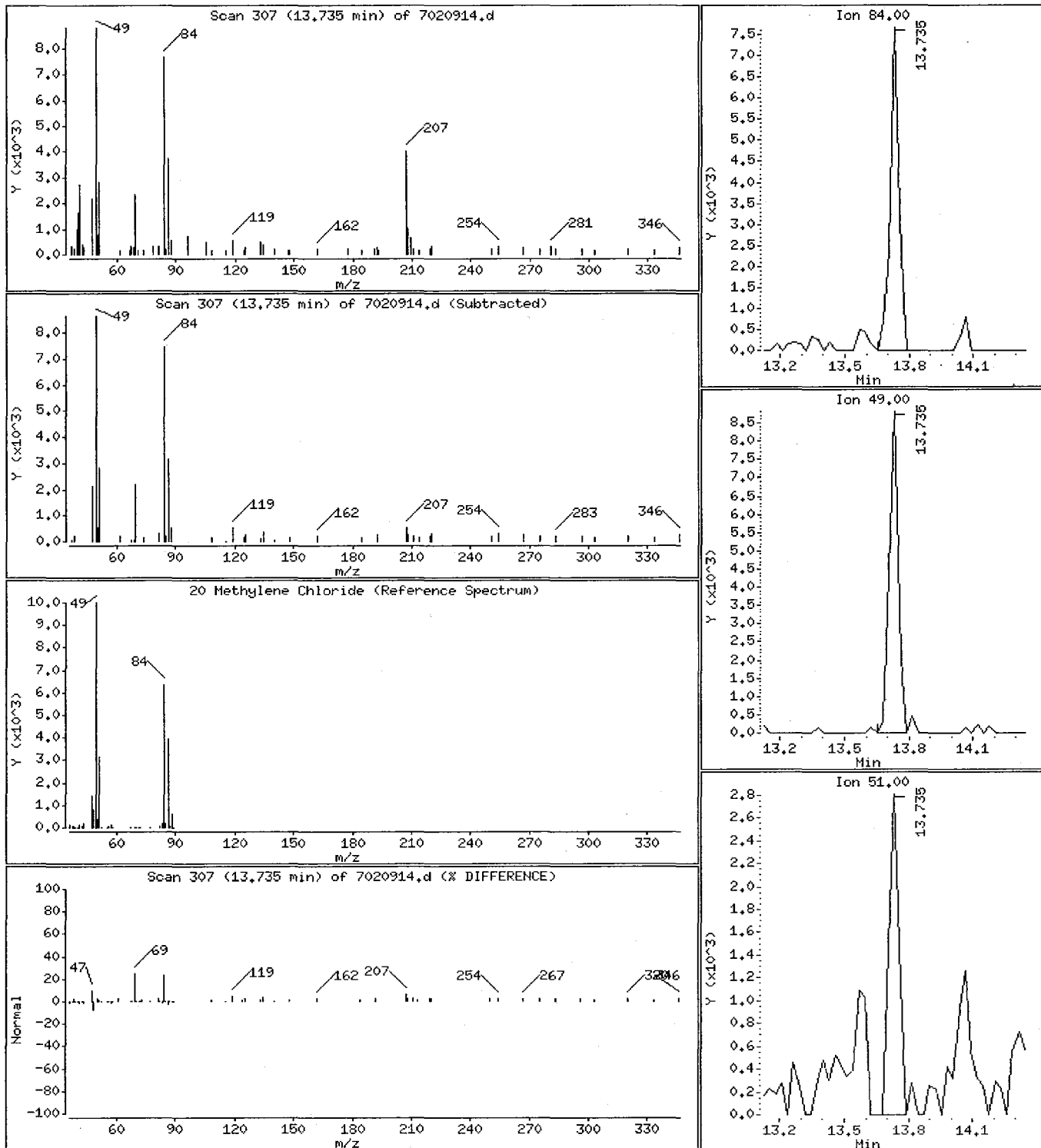
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.4064 PPBV



0384

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

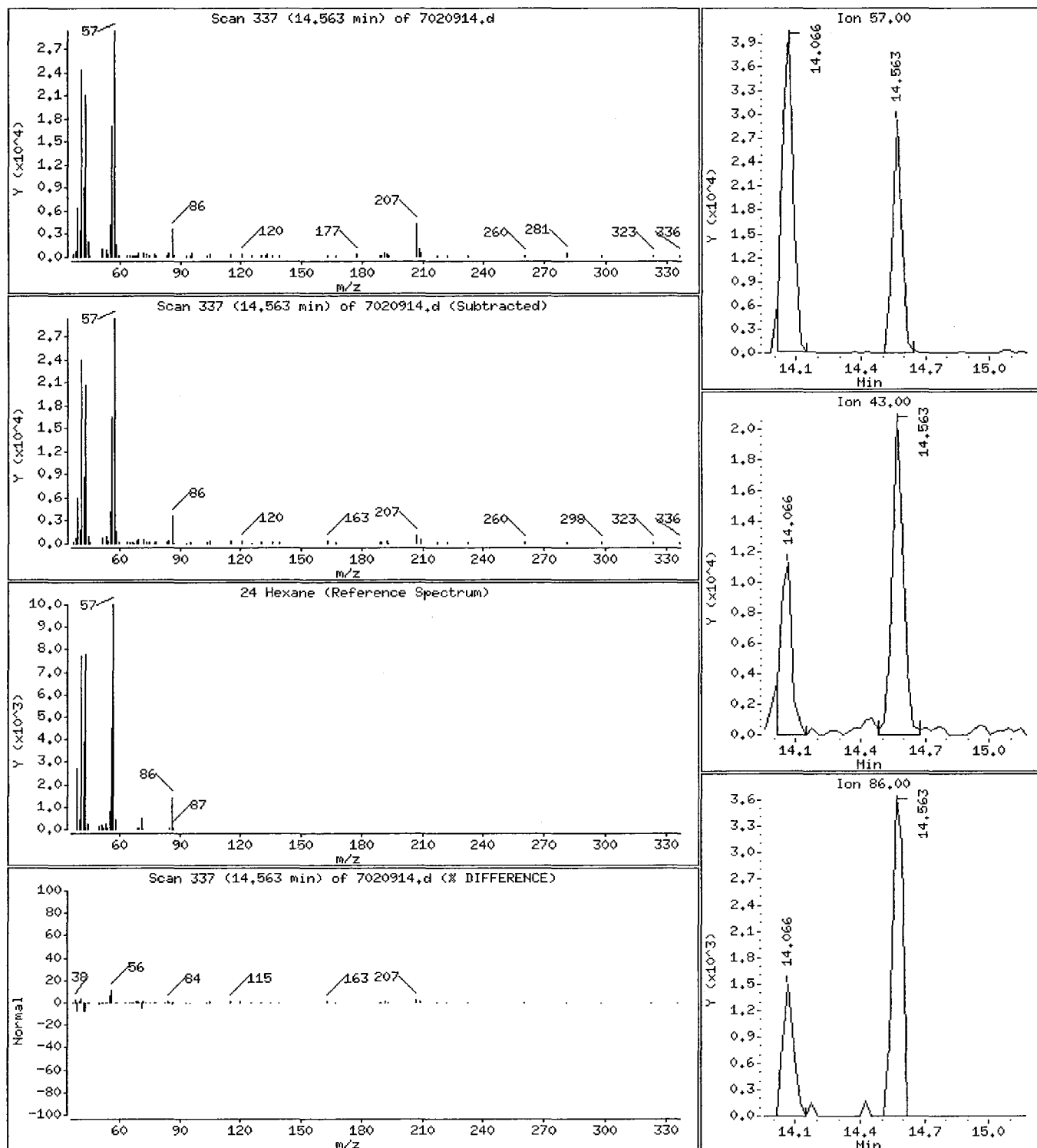
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.8675 PPBV



0385

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

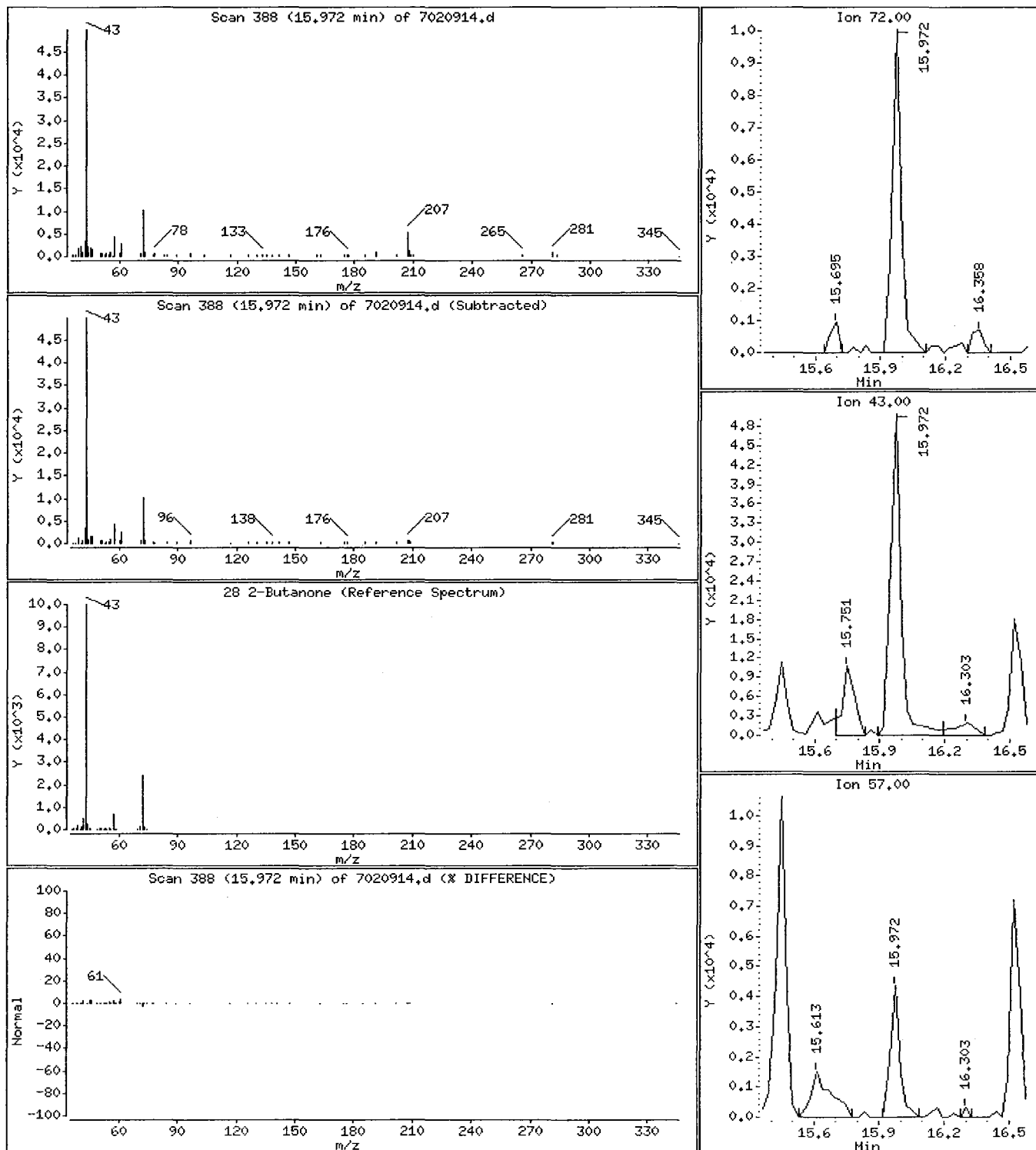
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.046 PPBV



0386

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

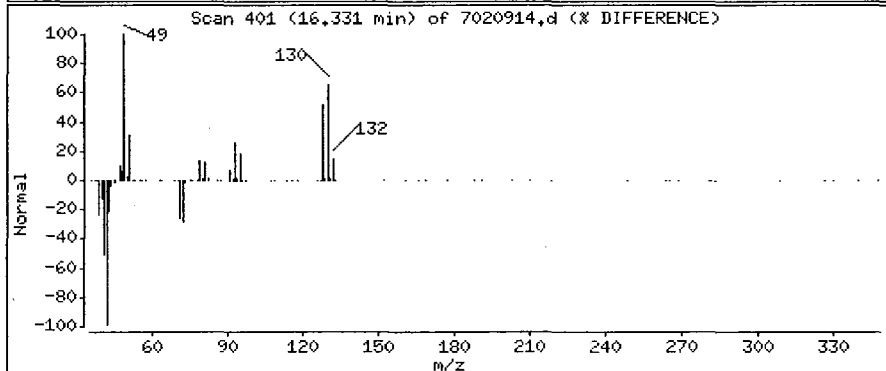
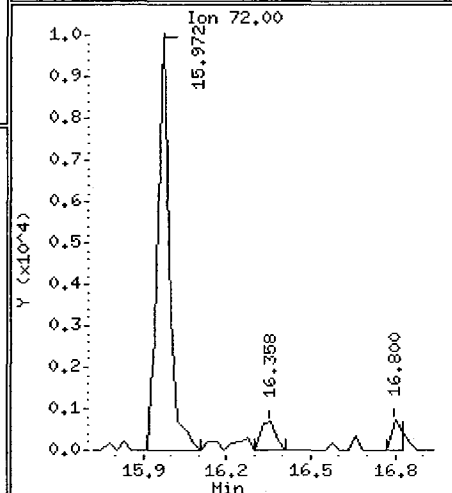
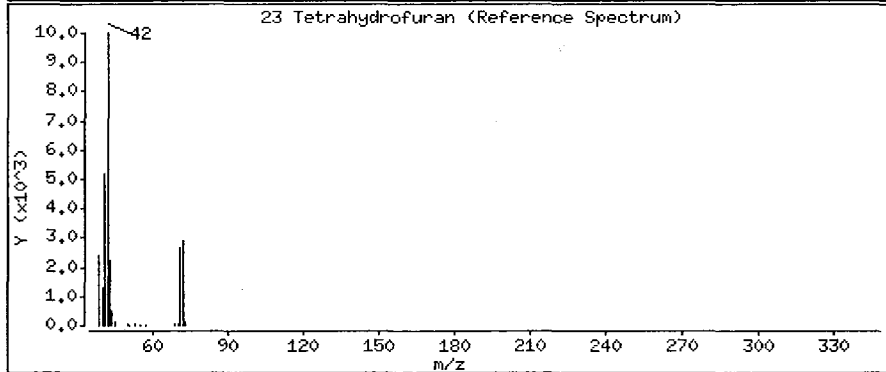
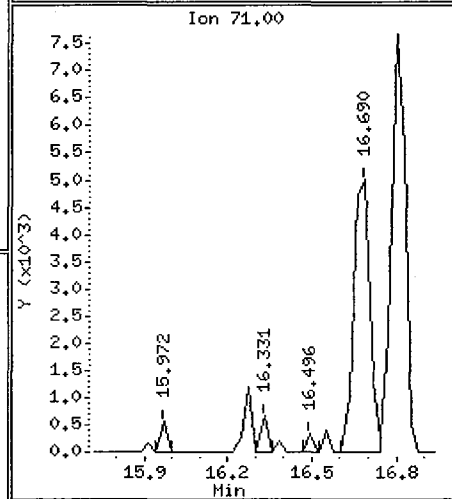
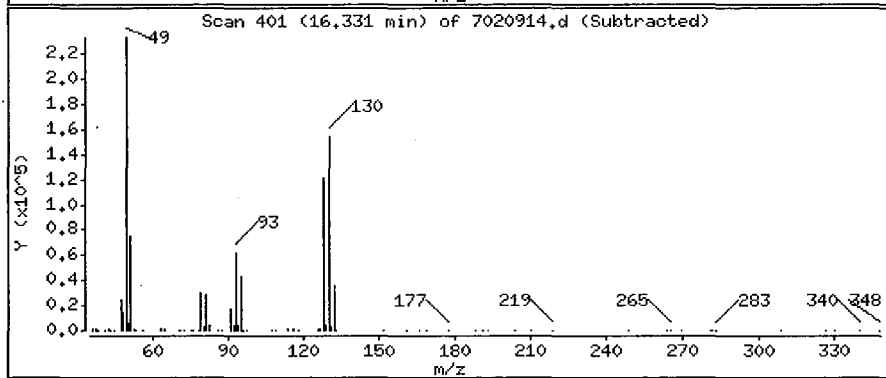
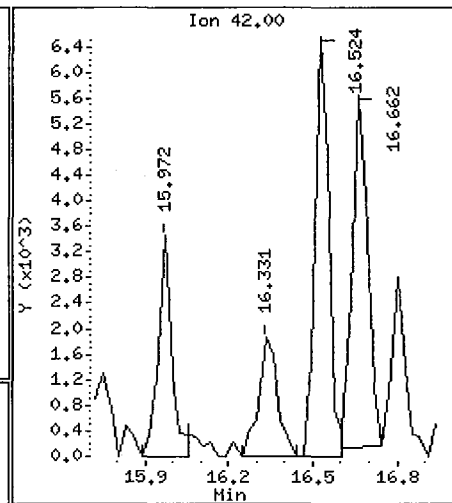
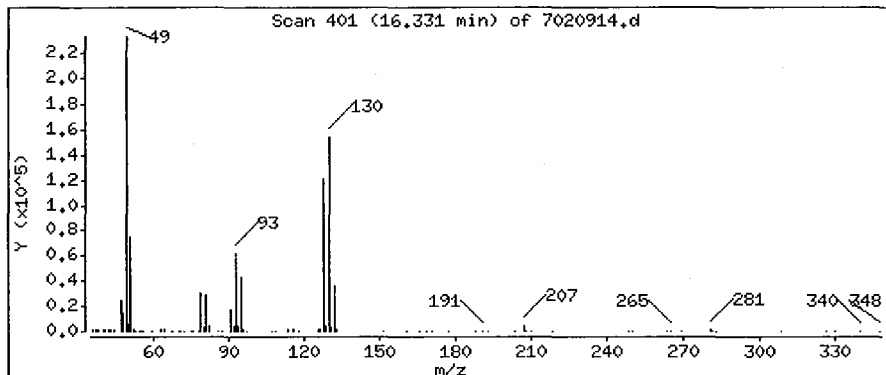
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1159 PPBV



0387

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

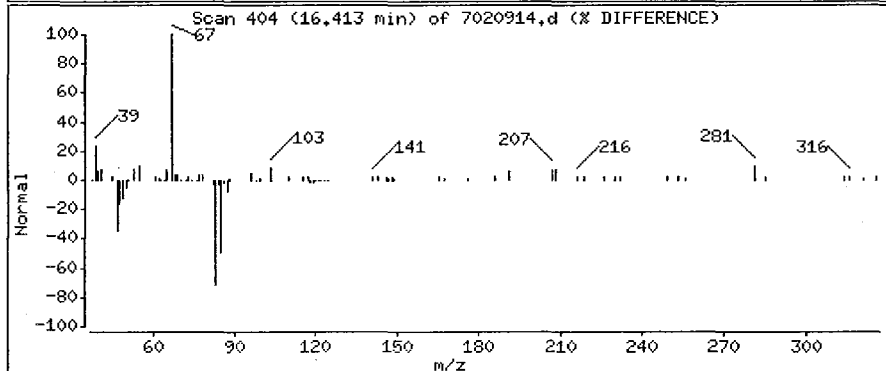
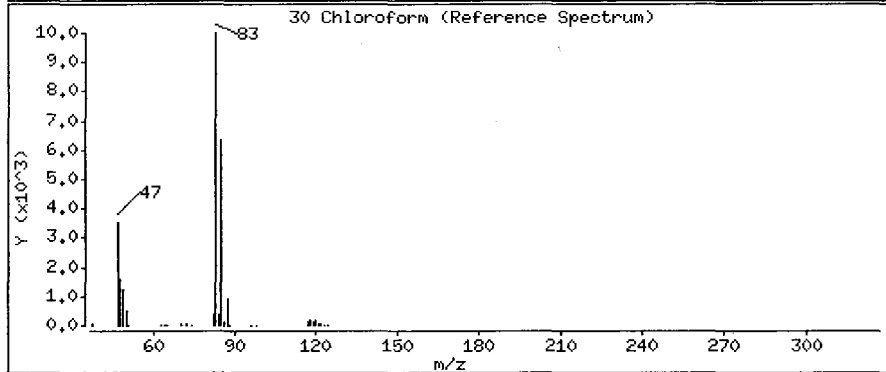
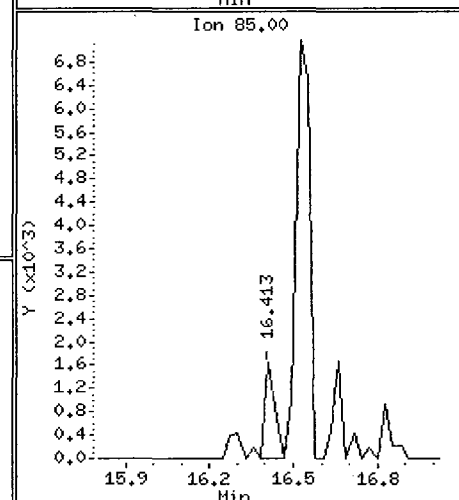
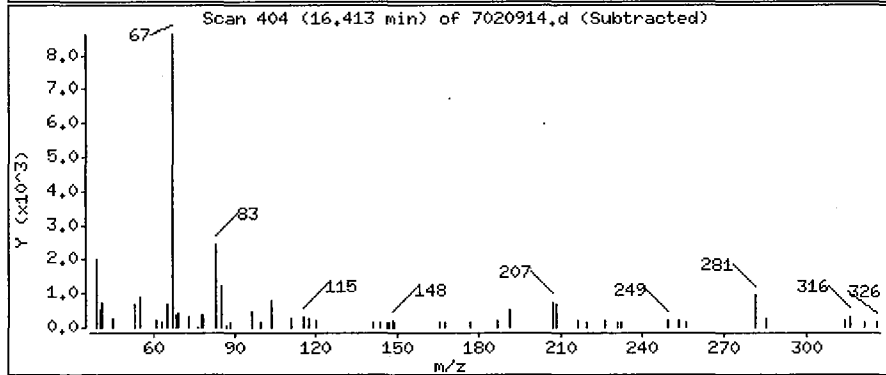
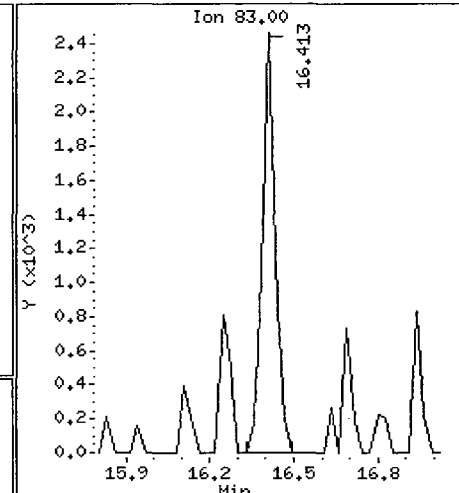
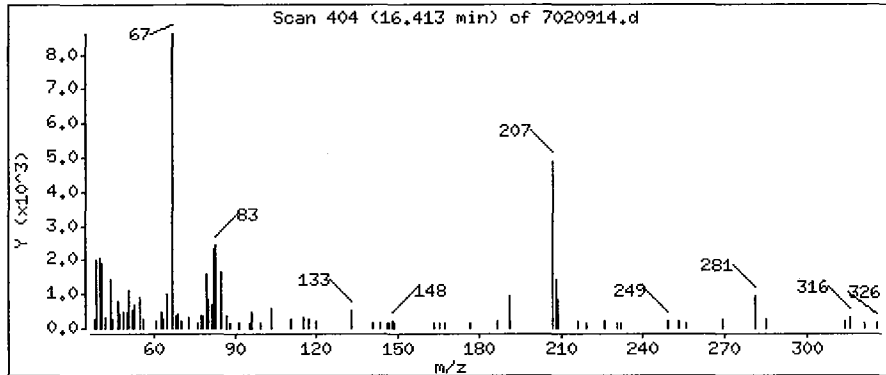
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.06490 PPBV



0388

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

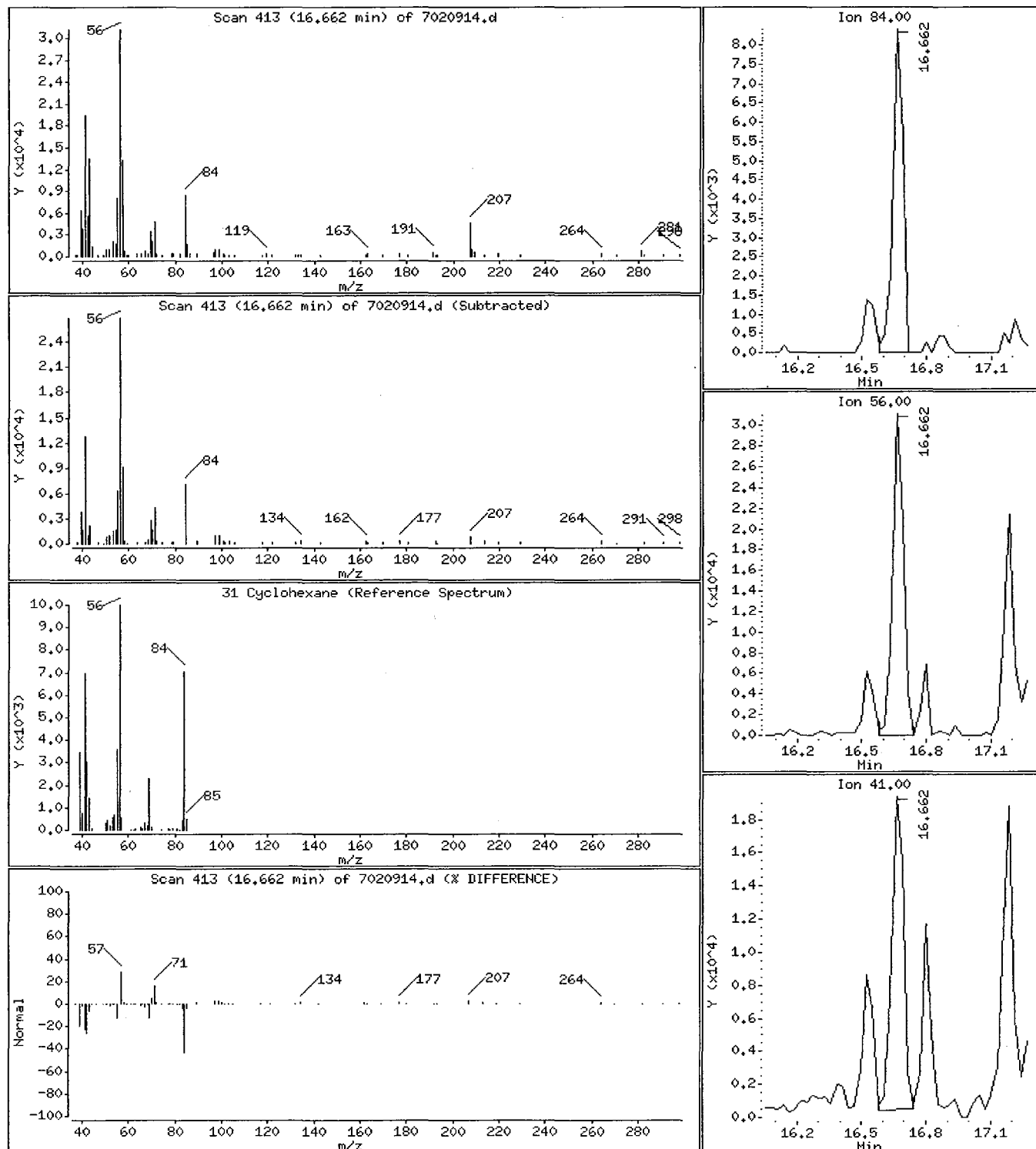
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.5012 PPBV



0389

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

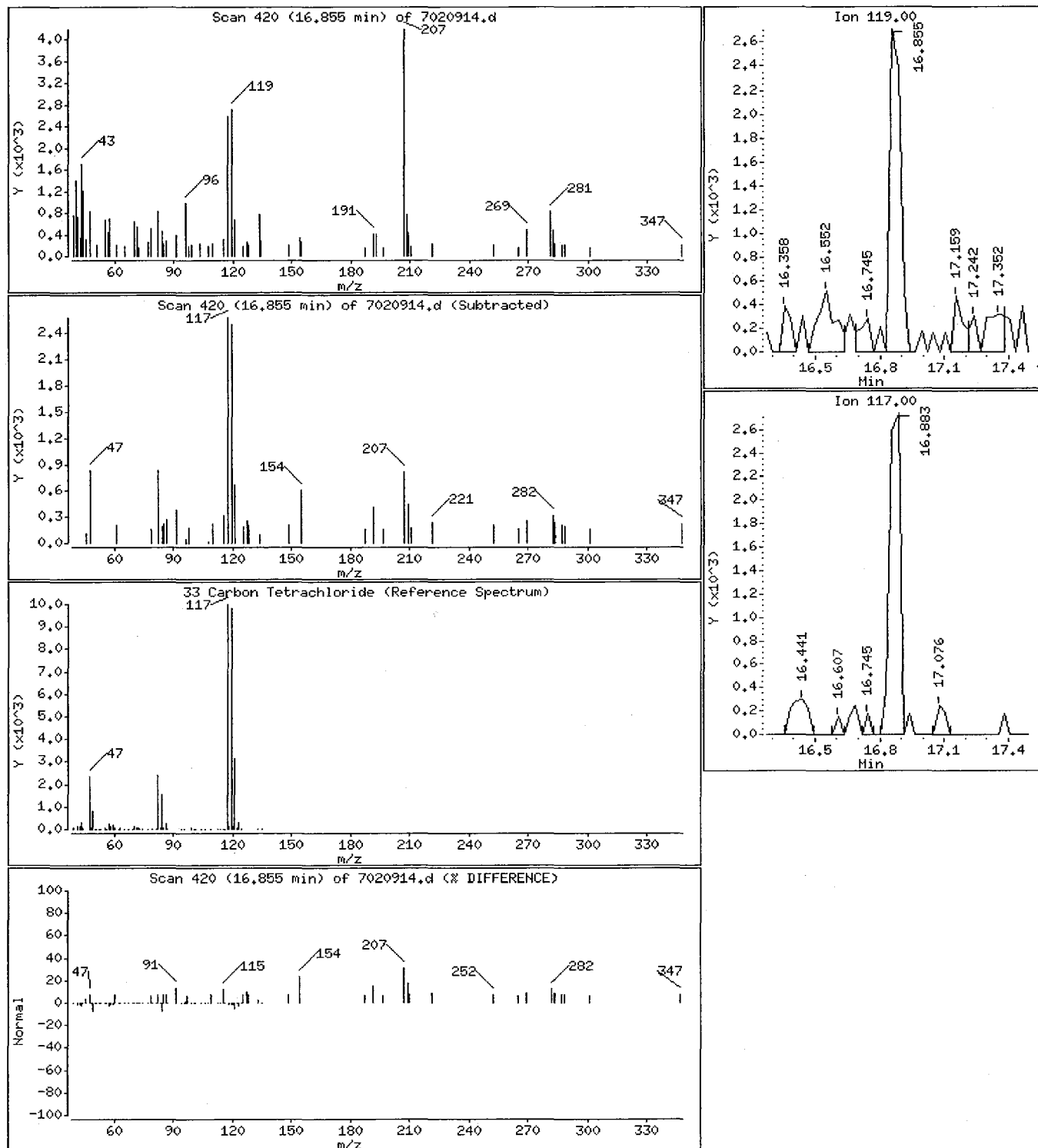
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1022 PPBV



0390

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

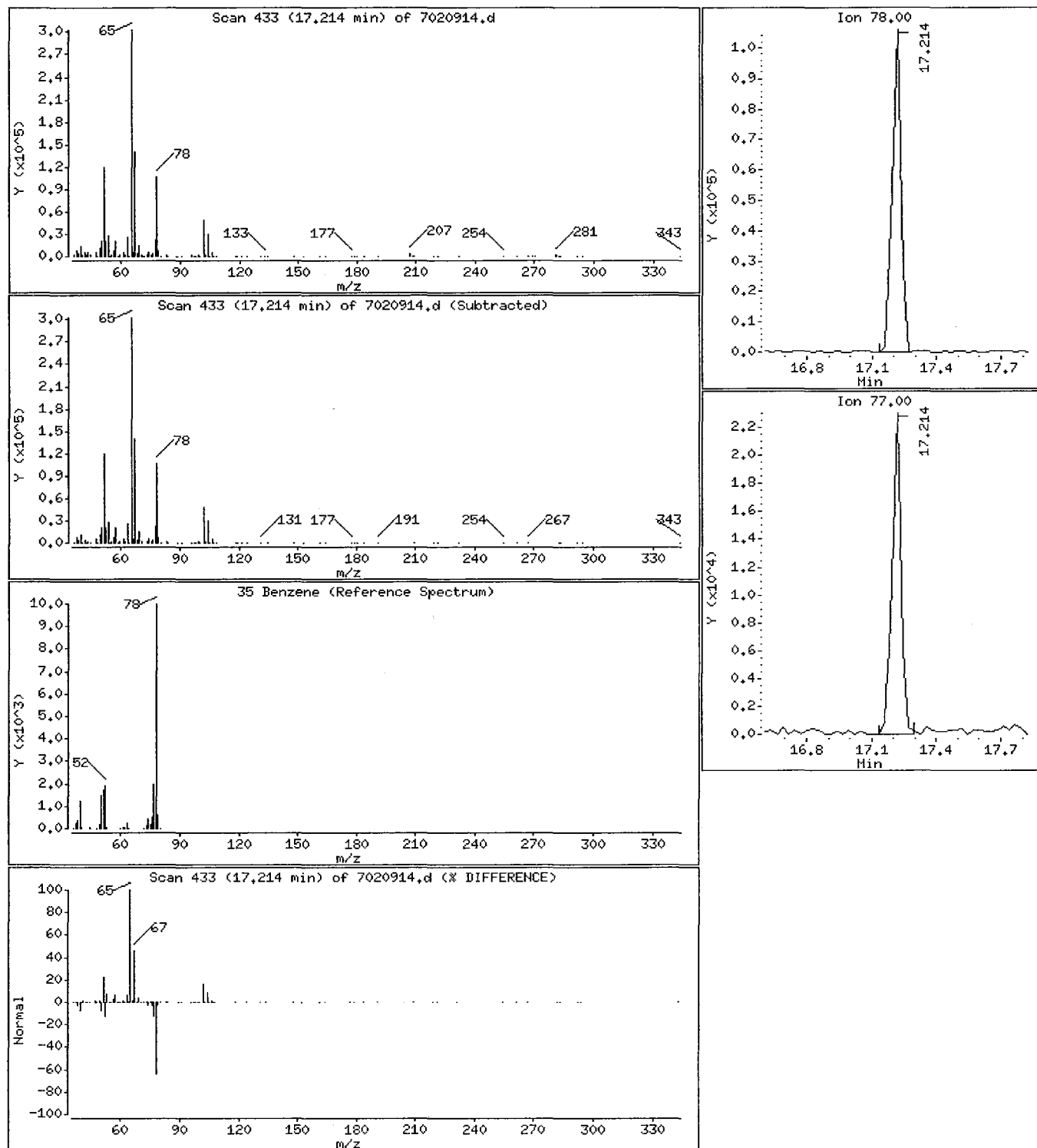
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1.712 PPBV



0391

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

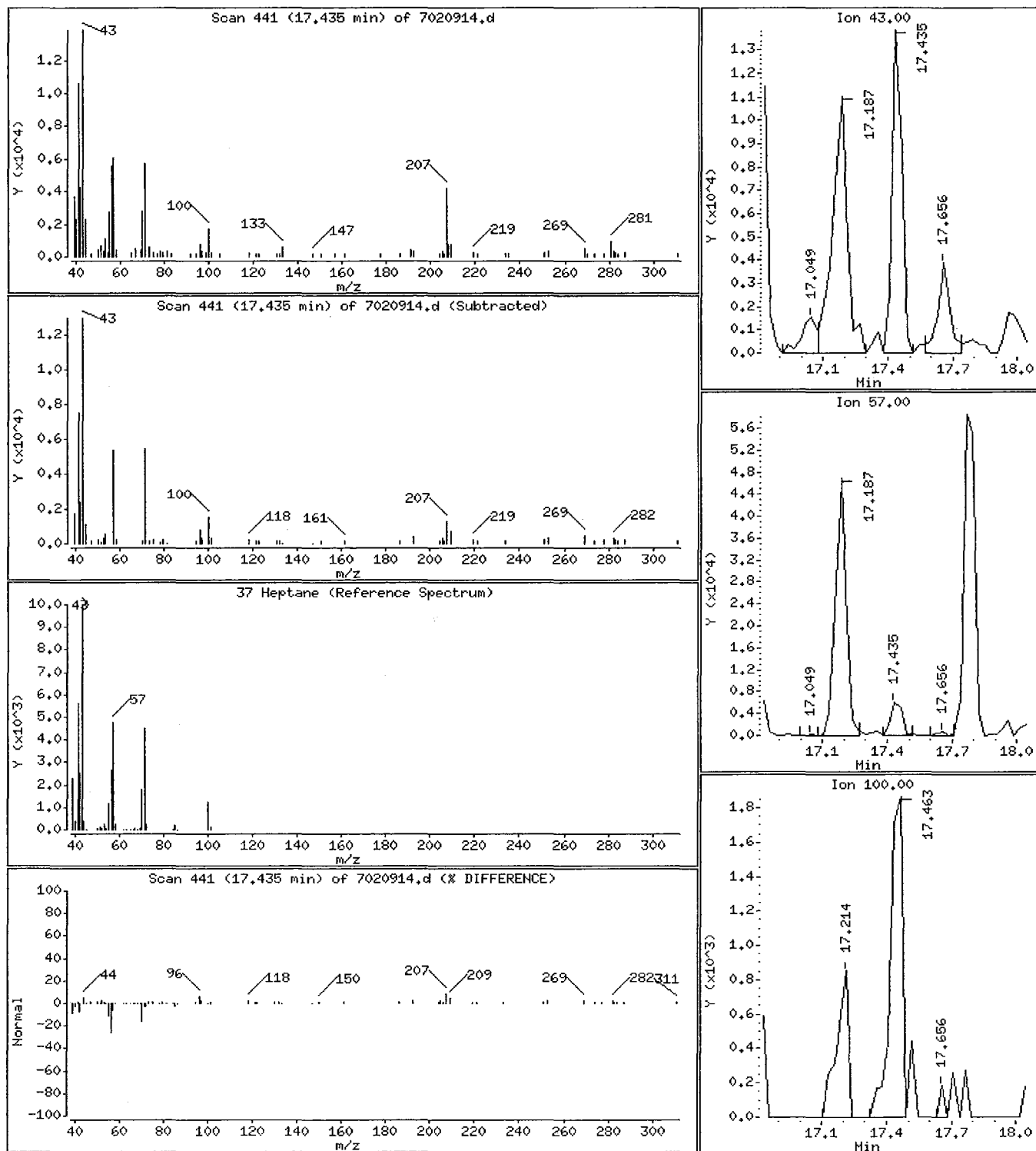
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

37 Heptane

Concentration: 0.4262 PPBV



0392

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

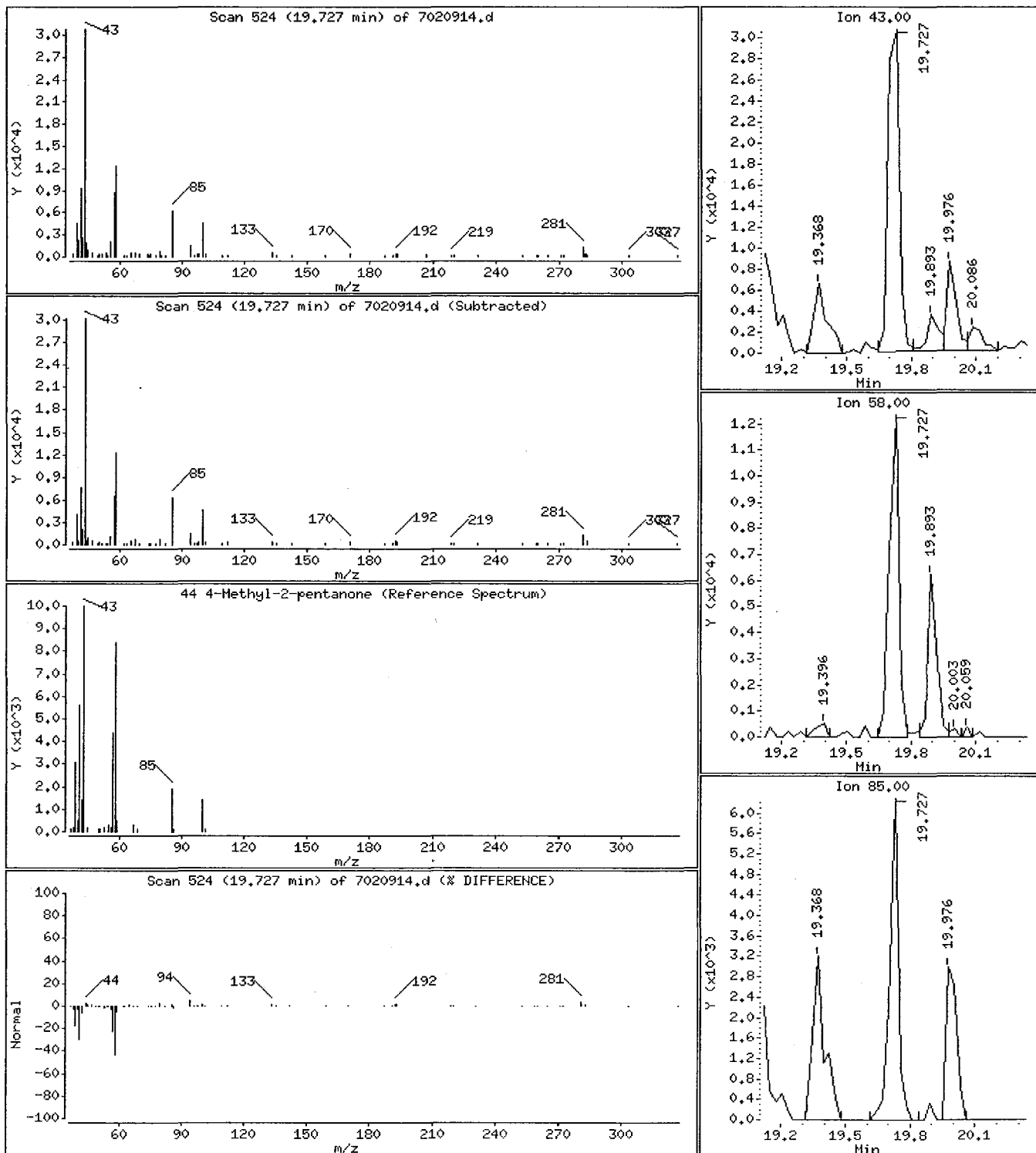
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 1,008 PPBV



0393

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

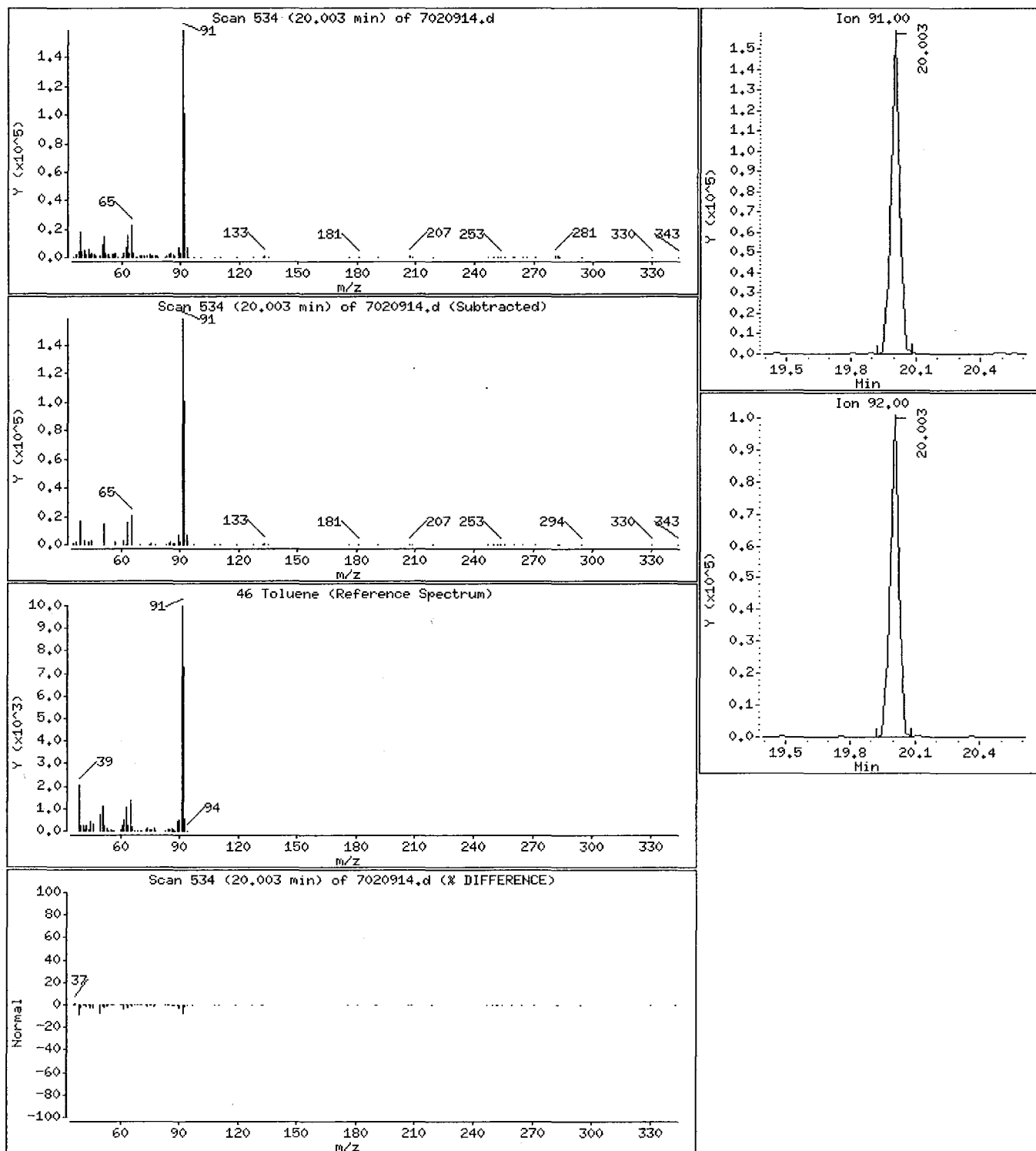
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 2,133 PPBV



0394

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

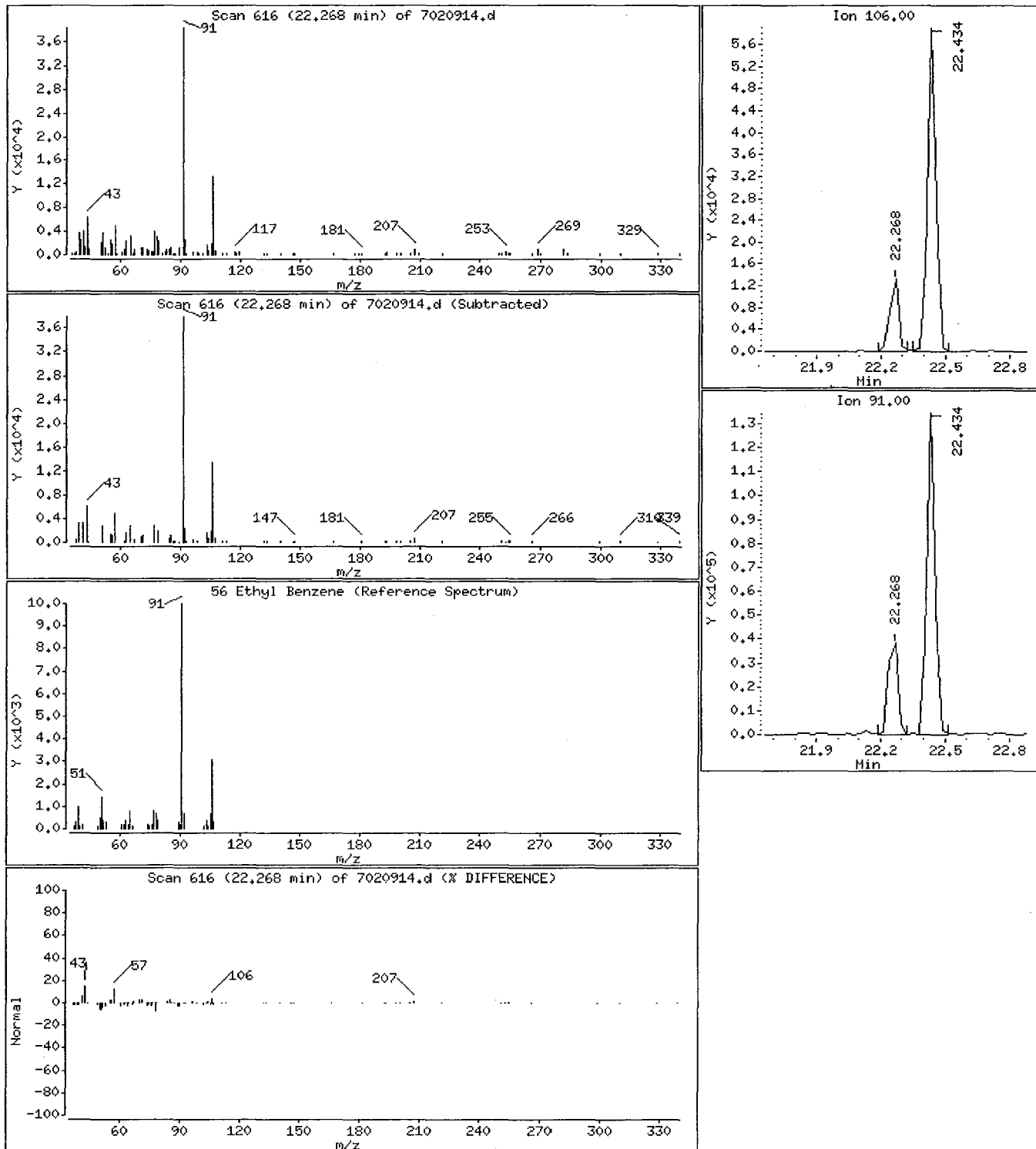
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.5489 PPBV



0395

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

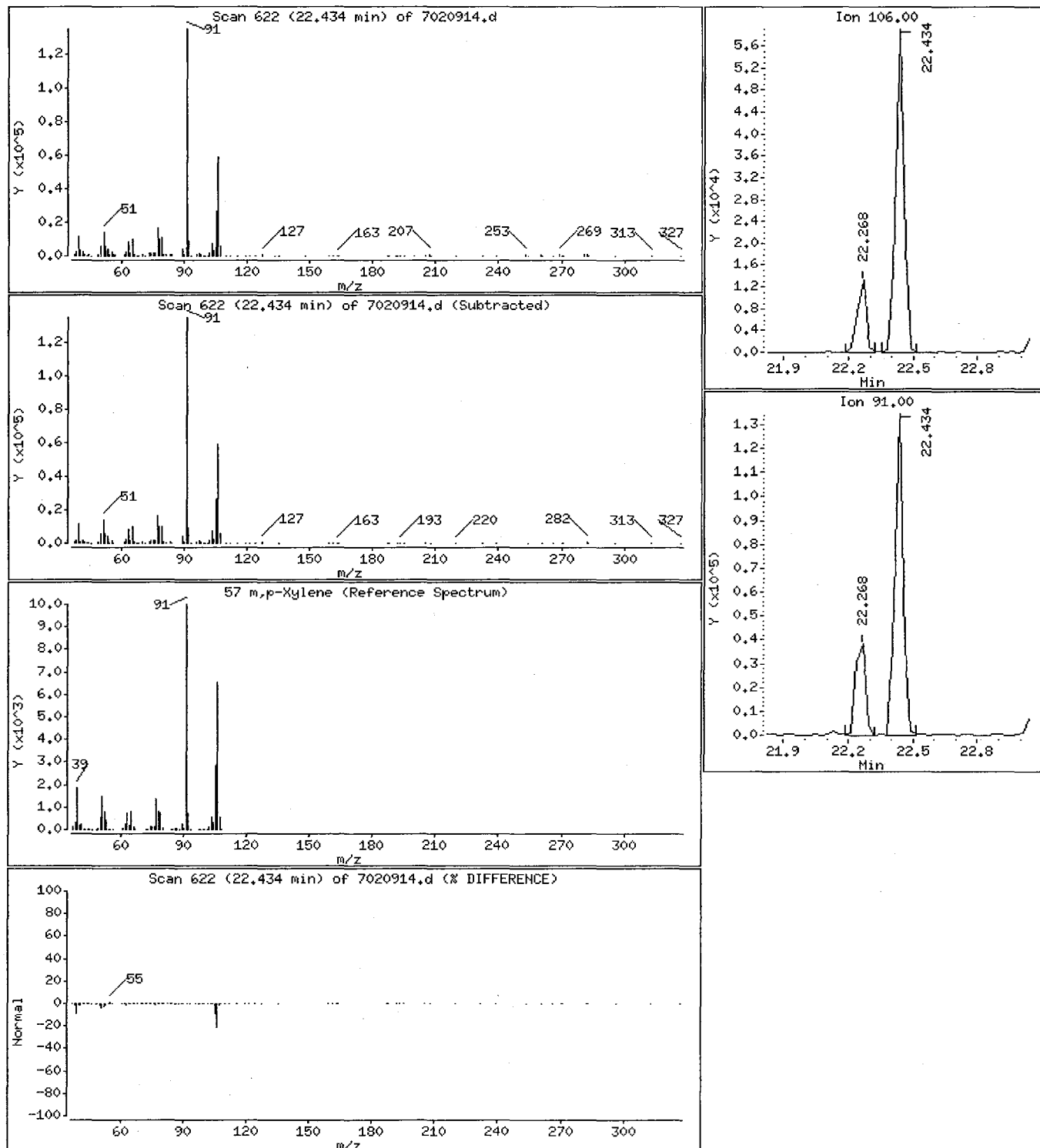
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.870 PPBV



0396

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

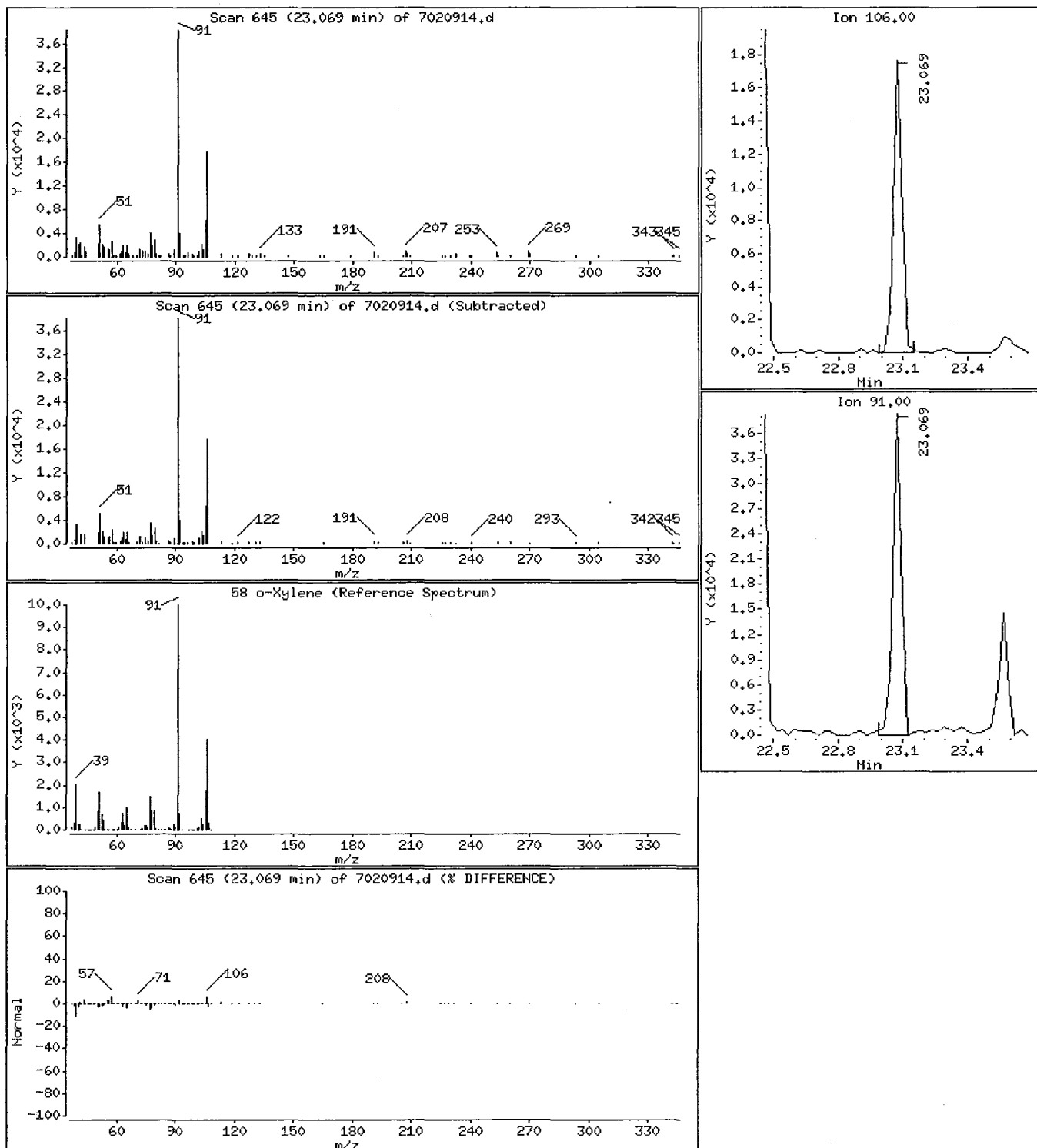
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.7026 PPBV



0397

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

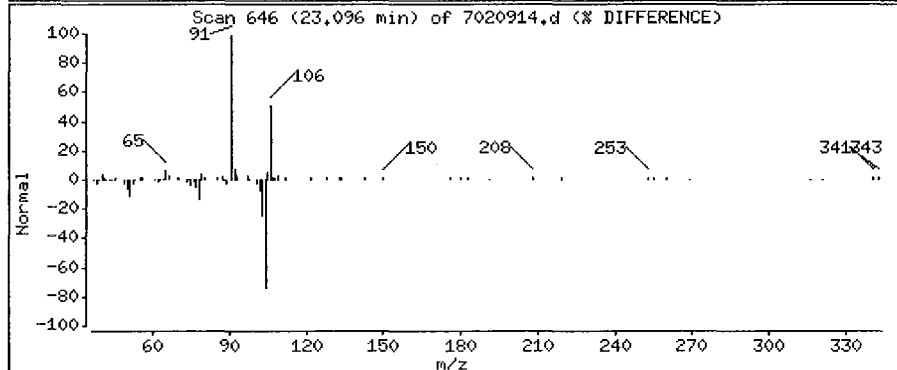
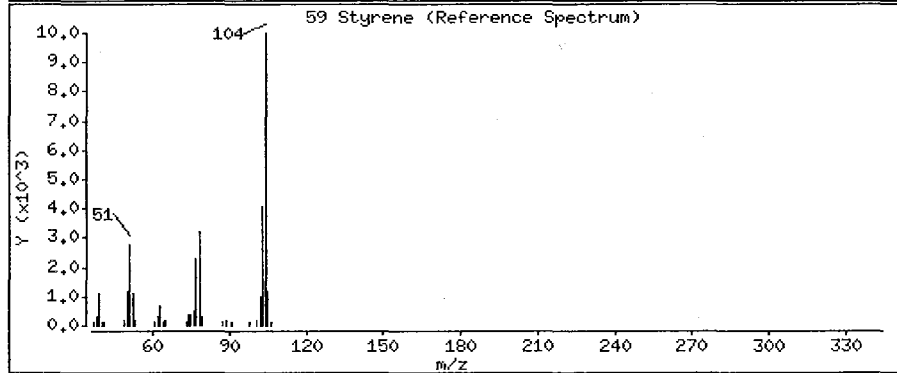
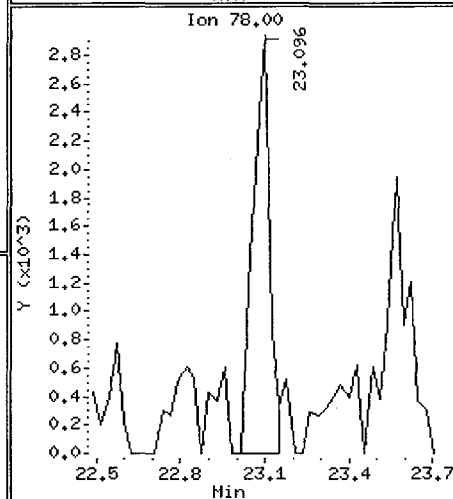
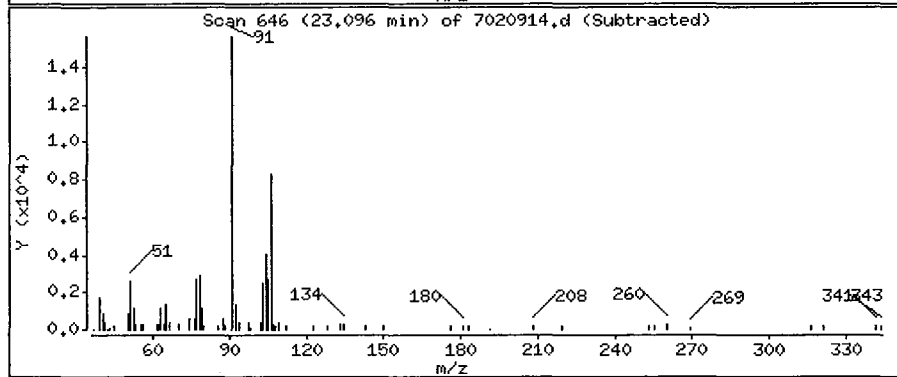
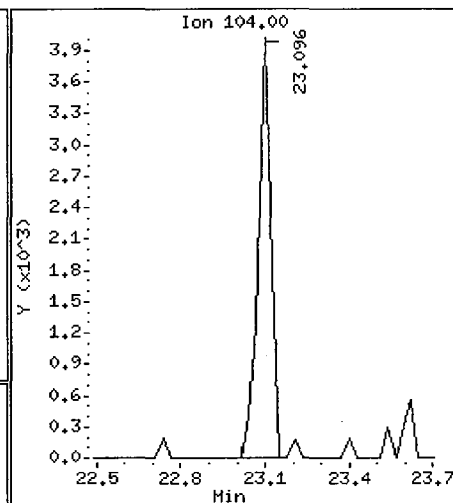
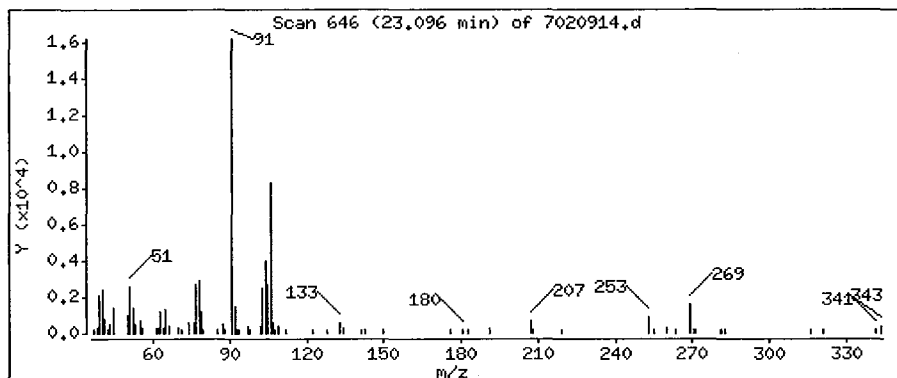
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1169 PPBV



0398

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

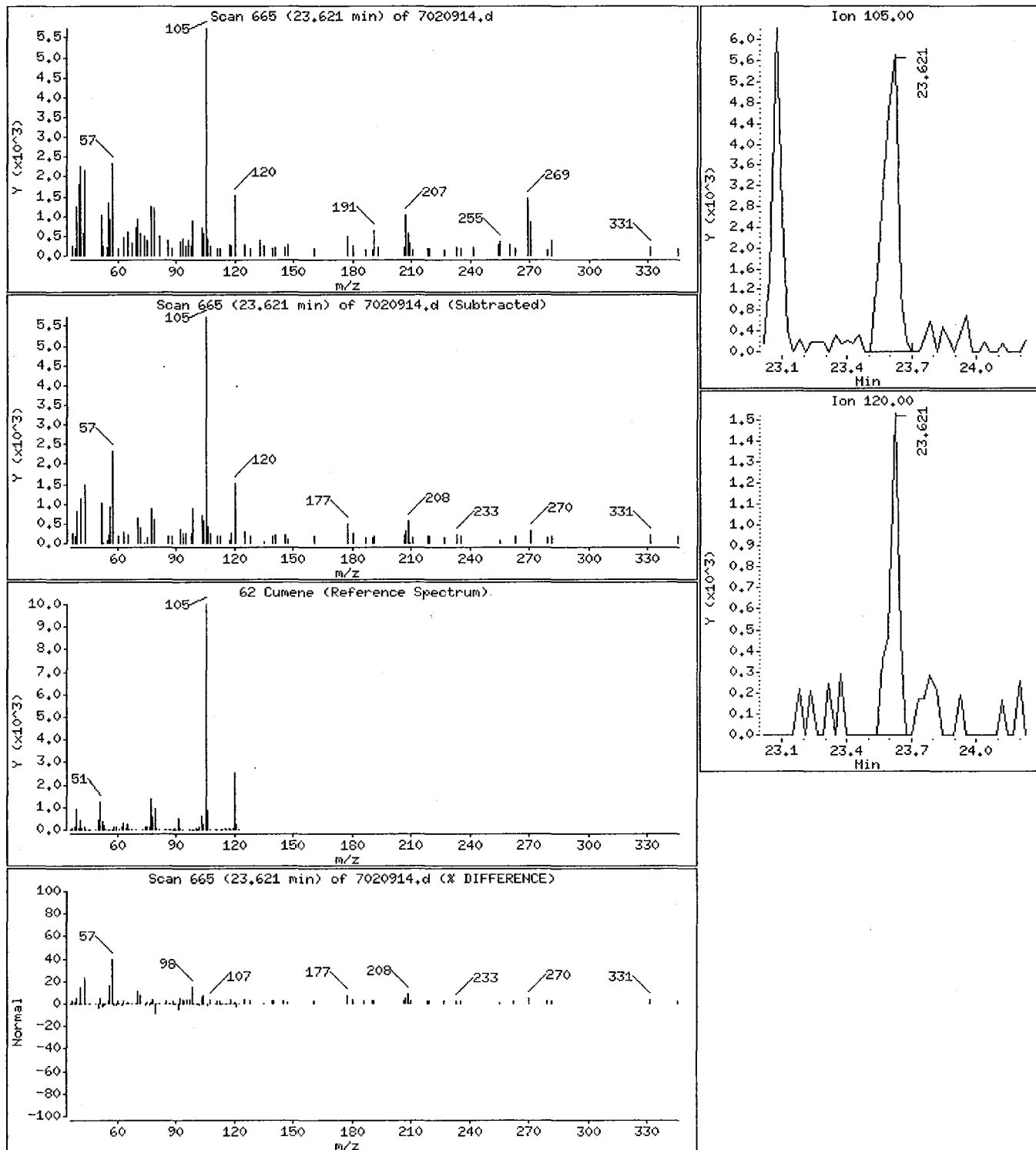
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.1613 PPBV



0399

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

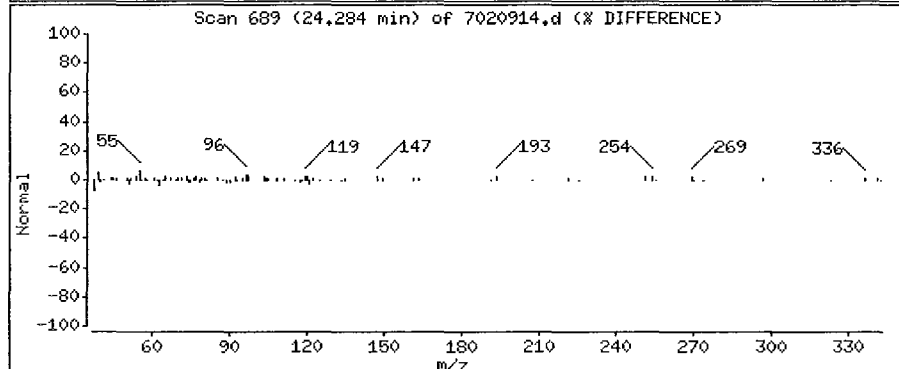
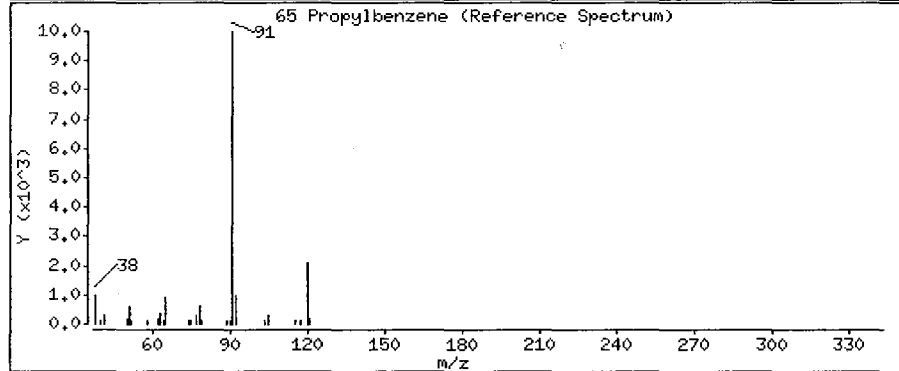
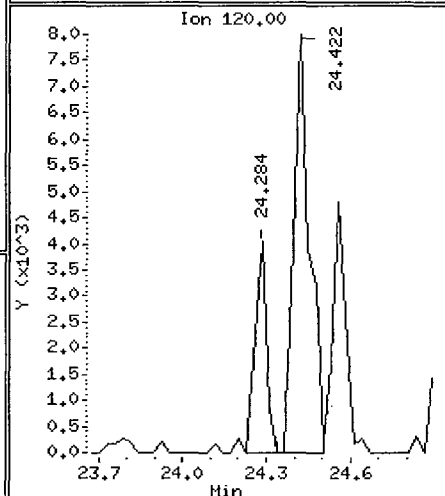
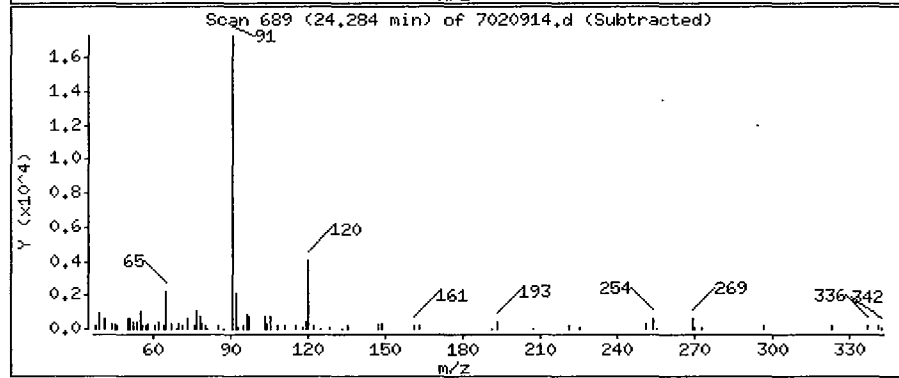
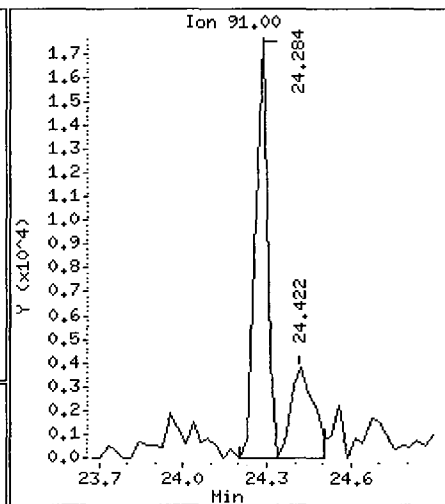
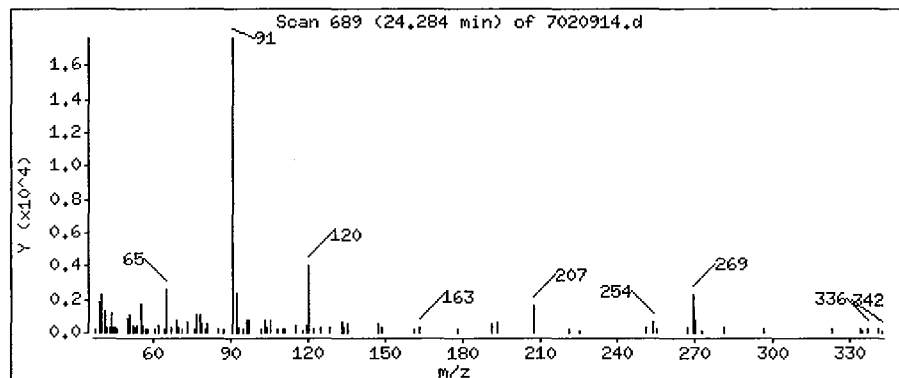
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.2224 PPBV



0400

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

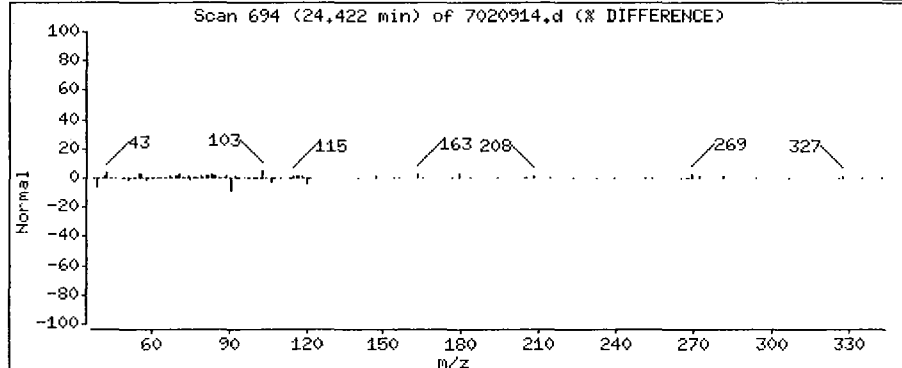
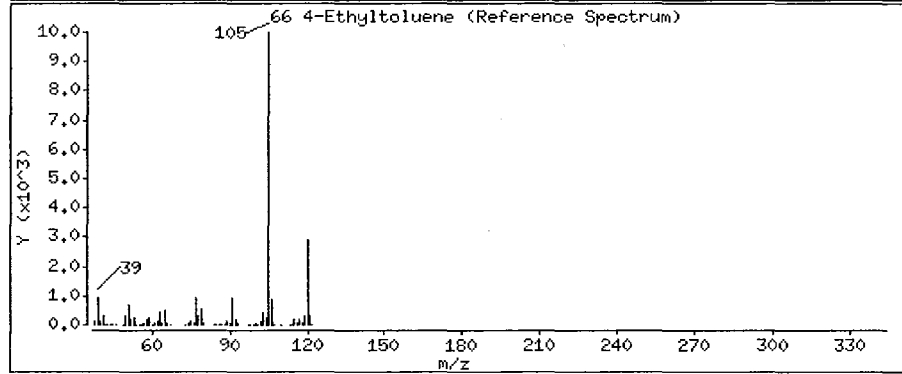
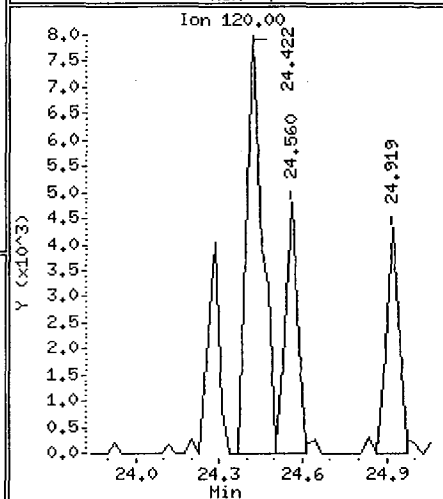
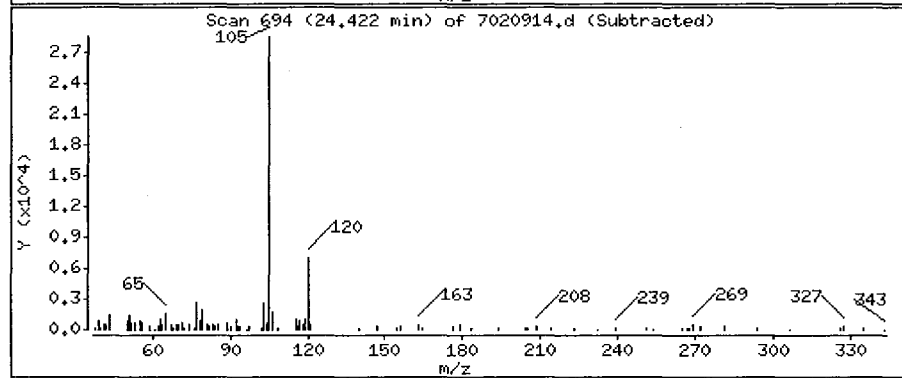
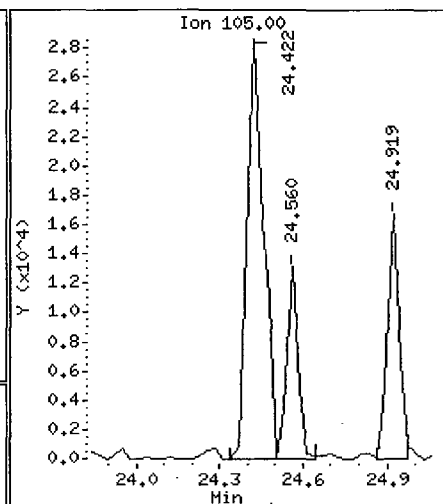
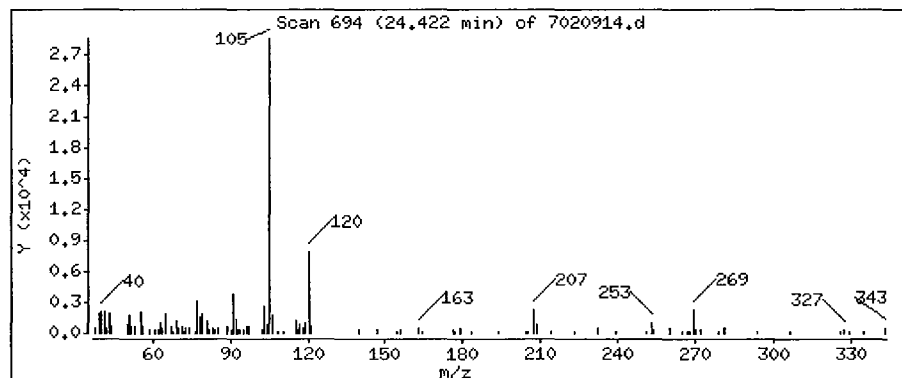
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.6466 PPBV



0401

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

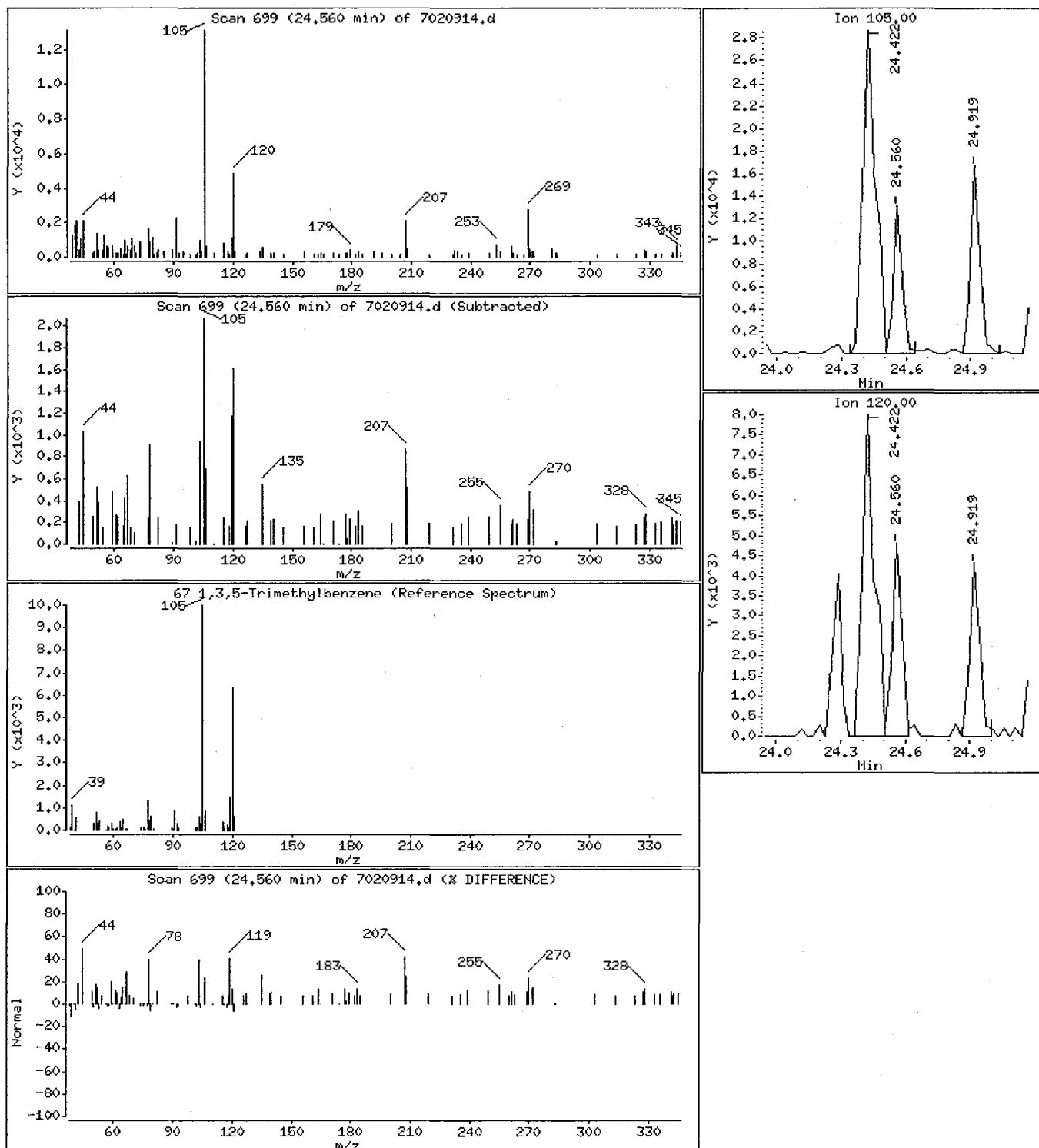
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2236 PPBV



0402

SCOEPAA00032074

Date : 09-FEB-2005 16:21

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12079

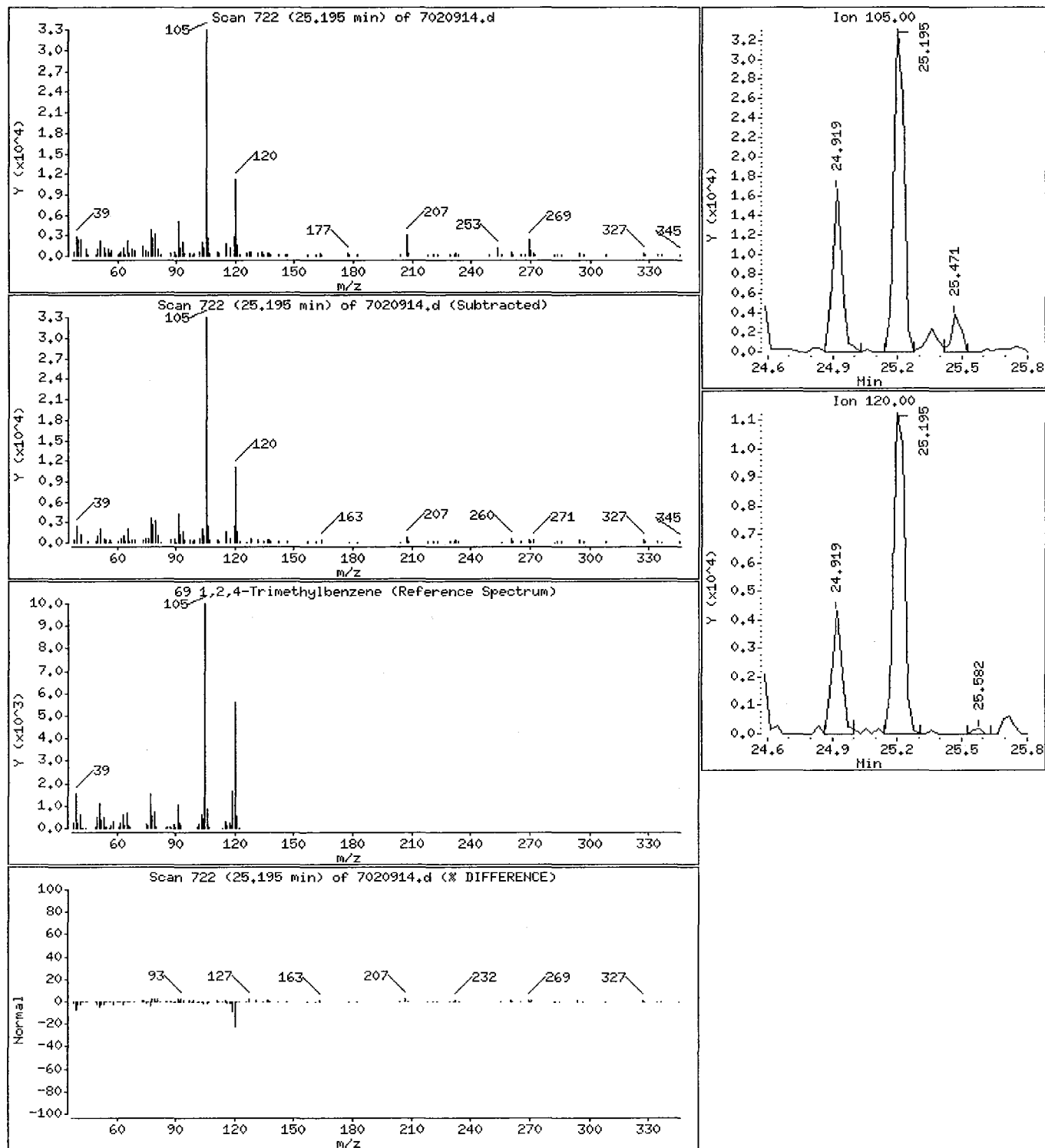
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.7006 PPBV



0403

AIR TOXICS LTD.

SAMPLE NAME: #11, Fab 2, Waste Water Treatment

ID#: 0502032-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020913	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 03:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.79	0.84	3.9
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.69	0.35	1.4
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	1.0	0.96	5.8
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.077 J	0.83	0.38 J
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.10 J	1.1	0.64 J
Benzene	0.17	1.7	0.55	5.4
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	0.11 J	0.92	0.58 J
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	4.0	0.64	15
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	0.26	1.2	1.8
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.49	0.74	2.1
m,p-Xylene	0.17	1.7	0.74	7.4
o-Xylene	0.17	0.59	0.74	2.6
Styrene	0.17	0.091 J	0.73	0.39 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.19	0.84	0.96
1,2,4-Trimethylbenzene	0.17	0.66	0.84	3.2
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.65	1.2	2.2
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	0.18 J	1.9	0.39 J
Acetone	0.86	3.8	2.0	9.1
Carbon Disulfide	0.86	0.077 J	2.7	0.24 J

AIR TOXICS LTD.

SAMPLE NAME: #11, Fab 2, Waste Water Treatment

ID#: 0502032-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020913	Date of Collection:	1/25/05
Dil. Factor:	1.71	Date of Analysis:	2/9/05 03:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	0.76 J	2.1	1.9 J
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	1.3	2.5	3.7
Hexane	0.86	1.2	3.0	4.1
Tetrahydrofuran	0.86	0.36 J	2.5	1.1 J
Cyclohexane	0.86	0.50 J	2.9	1.7 J
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	0.73 J	3.5	3.0 J
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.71 J	4.2	3.5 J
Ethanol	0.86	4.6	1.6	8.7
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.45 J	3.5	1.8 J
Cumene	0.86	0.13 J	4.2	0.66 J
Propylbenzene	0.86	0.16 J	4.2	0.78 J
Naphthalene	0.86	0.59 J	4.5	3.1 J

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020913.d
Lab Smp Id: 0502032-11A
Inj Date : 09-FEB-2005 15:37
Operator : nk
Smp Info : 500ml Can# 10794
Misc Info : 6.5"Hg-5psi,Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 Isoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msd7.i

Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	449494	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	333860			26.96- 126.96	74.27	
16.331	16.331	(1.000)	49	807603			126.50- 226.50	179.67	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2082651	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	362052			0.00- 67.64	17.38	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1470507	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	892528			9.26- 109.26	60.70	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	968403	10.4604	10.460	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	436073			0.17- 100.17	45.03	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1716643	9.66143	9.661	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	207988			0.00- 62.11	12.12	

0406

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1240172			22.24-	122.24	72.24

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.953	(1.082)	174	823517	10.8408	10.841	80.00-	120.00	100.00
23.952	23.953	(1.082)	95	1243803			97.68-	197.68	151.04
23.952	23.953	(1.082)	176	779358			43.78-	143.78	94.64

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	167982	0.46105	0.7884	80.00-	120.00	100.00
5.947	5.947	(0.364)	87	52342			0.00-	81.67	31.16

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	42158	0.40135	0.6863	80.00-	120.00	100.00
7.356	7.356	(0.450)	52	14042			0.00-	84.65	33.31

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	9859	0.10295	0.1760	80.00-	120.00	100.00(aH)
8.295	8.295	(0.508)	39	12331			48.03-	148.03	125.07

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	192034	0.60613	1.036	80.00-	120.00	100.00
11.056	11.056	(0.677)	103	132211			13.78-	113.78	68.85

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	119965	2.69778	4.613	80.00-	120.00	100.00
12.050	12.050	(0.738)	43	33539			0.00-	76.71	27.96
12.050	12.050	(0.738)	46	51723			0.00-	90.17	43.12

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	528935	2.23317	3.819	80.00-	120.00	100.00
12.851	12.824	(0.787)	58	135363			0.00-	78.78	25.59

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	99890	0.44619	0.7630	80.00-	120.00	100.00(a)
13.238	13.238	(0.811)	43	21116			0.00-	69.75	21.14
13.265	13.238	(0.812)	59	3884			0.00-	53.72	3.89

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	13260	0.04507	0.07708	80.00-	120.00	100.00(a)

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	35411	0.37779	0.6460	80.00-	120.00	100.00
13.735	13.735	(0.841)	49	47741			111.57-	211.57	134.82
13.735	13.735	(0.841)	51	16099			0.00-	93.42	45.46

0407

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	120102	0.67621	1.156	80.00- 120.00	100.00
14.563	14.563	(0.892)	43	84842			15.23- 115.23	70.64
14.563	14.563	(0.892)	86	18329			0.00- 65.23	15.26

28 2-Butanone						CAS #: 78-93-3		
15.972	15.972	(0.978)	72	36281	0.73919	1.264	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	199845			1046.10-1146.10	550.83
15.972	15.972	(0.978)	57	17509			0.00- 89.21	48.26

23 Tetrahydrofuran						CAS #: 109-99-9		
16.331	16.331	(1.000)	42	29098	0.21364	0.3653	80.00- 120.00	100.00(a)
16.331	16.331	(1.000)	71	11627			0.00- 82.39	39.96
16.331	16.331	(1.000)	72	7764			0.00- 86.54	26.68

30 Chloroform						CAS #: 67-66-3		
16.413	16.414	(1.005)	83	9696	0.04509	0.07711	80.00- 120.00	100.00(a)
16.413	16.414	(1.005)	85	5267			14.01- 114.01	54.32

31 Cyclohexane						CAS #: 110-82-7		
16.662	16.662	(1.020)	84	28498	0.29019	0.4962	80.00- 120.00	100.00(a)
16.662	16.662	(1.020)	56	72838			93.37- 193.37	255.59
16.662	16.662	(1.020)	41	42142			30.80- 130.80	147.88

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.855	16.883	(1.032)	119	9577	0.05933	0.1014	80.00- 120.00	100.00(a)
16.883	16.883	(1.034)	117	8601			62.01- 162.01	89.81

35 Benzene						CAS #: 71-43-2		
17.214	17.214	(0.967)	78	300720	0.99493	1.701	80.00- 120.00	100.00
17.214	17.214	(0.967)	77	60870			0.00- 72.07	20.24

37 Heptane						CAS #: 142-82-5		
17.435	17.435	(0.980)	43	46405	0.26295	0.4496	80.00- 120.00	100.00(a)
17.435	17.435	(0.980)	57	24410			1.42- 101.42	52.60
17.435	17.435	(0.980)	100	8679			0.00- 66.93	18.70

39 Trichloroethene						CAS #: 79-01-6		
18.153	18.153	(1.020)	130	6689	0.06301	0.1077	80.00- 120.00	100.00(a)
18.153	18.153	(1.020)	95	5807			66.40- 166.40	86.81
18.153	18.153	(1.020)	97	4172			23.45- 123.45	62.37

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.727	19.727	(1.109)	43	83075	0.42552	0.7276	80.00- 120.00	100.00(a)
19.727	19.727	(1.109)	58	28291			0.00- 87.49	34.05
19.727	19.727	(1.109)	85	14235			0.00- 66.91	17.14

0408

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
46 Toluene						CAS #: 108-88-3			
20.003	20.004	(1.124)	91	820084	2.36830	4.050	80.00- 120.00	100.00	
20.003	20.004	(1.124)	92	503750			11.18- 111.18	61.43	

49 Tetrachloroethene						CAS #: 127-18-4			
20.804	20.804	(0.940)	166	19380	0.15305	0.2617	80.00- 120.00	100.00	
20.804	20.804	(0.940)	129	12695			28.01- 128.01	65.51	
20.804	20.804	(0.940)	131	14884			25.86- 125.86	76.80	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	34385	0.28480	0.4870	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	127179			294.68- 394.68	369.87	

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	147292	0.99747	1.706	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	324798			168.06- 268.06	220.51	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	41309	0.34351	0.5874	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	105434			186.48- 286.48	255.23	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	9887	0.05311	0.09082	80.00- 120.00	100.00(a)	
23.069	23.096	(1.042)	78	12806			6.37- 106.37	129.52	

62 Cumene						CAS #: 98-82-8			
23.566	23.621	(1.065)	105	22930	0.07854	0.1343	80.00- 120.00	100.00(a)	
23.621	23.621	(1.067)	120	3981			0.00- 70.65	17.36	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	37287	0.09282	0.1587	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	8867			0.00- 69.13	23.78	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	132530	0.41362	0.7073	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	36649			0.00- 73.94	27.65	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	32338	0.11376	0.1945	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	13413			0.00- 88.64	41.48	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	104306	0.38355	0.6559	80.00- 120.00	100.00	
25.223	25.195	(1.140)	120	40526			0.00- 87.09	38.85	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	207057	0.34316	0.5868	80.00- 120.00	100.00(a)	

0409

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- H - Operator selected an alternate compound hit.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020913.d
Lab Smp Id: 0502032-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi,Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	449494	-5.29
38 1,4-Difluorobenze	2234295	1340577	3128013	2082651	-6.79
54 Chlorobenzene-d5	1557243	934346	2180140	1470507	-5.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0411

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-11A
Level: LOW Operator: nk
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.5"Hg-5psi,Clayton

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.460	104.60	70-130
\$ 45 Toluene-d8	10.000	9.661	96.61	70-130
\$ 63 Bromofluorobenzene	10.000	10.841	108.41	70-130

0412

Date : 09-FEB-2005 15:37

Client ID:

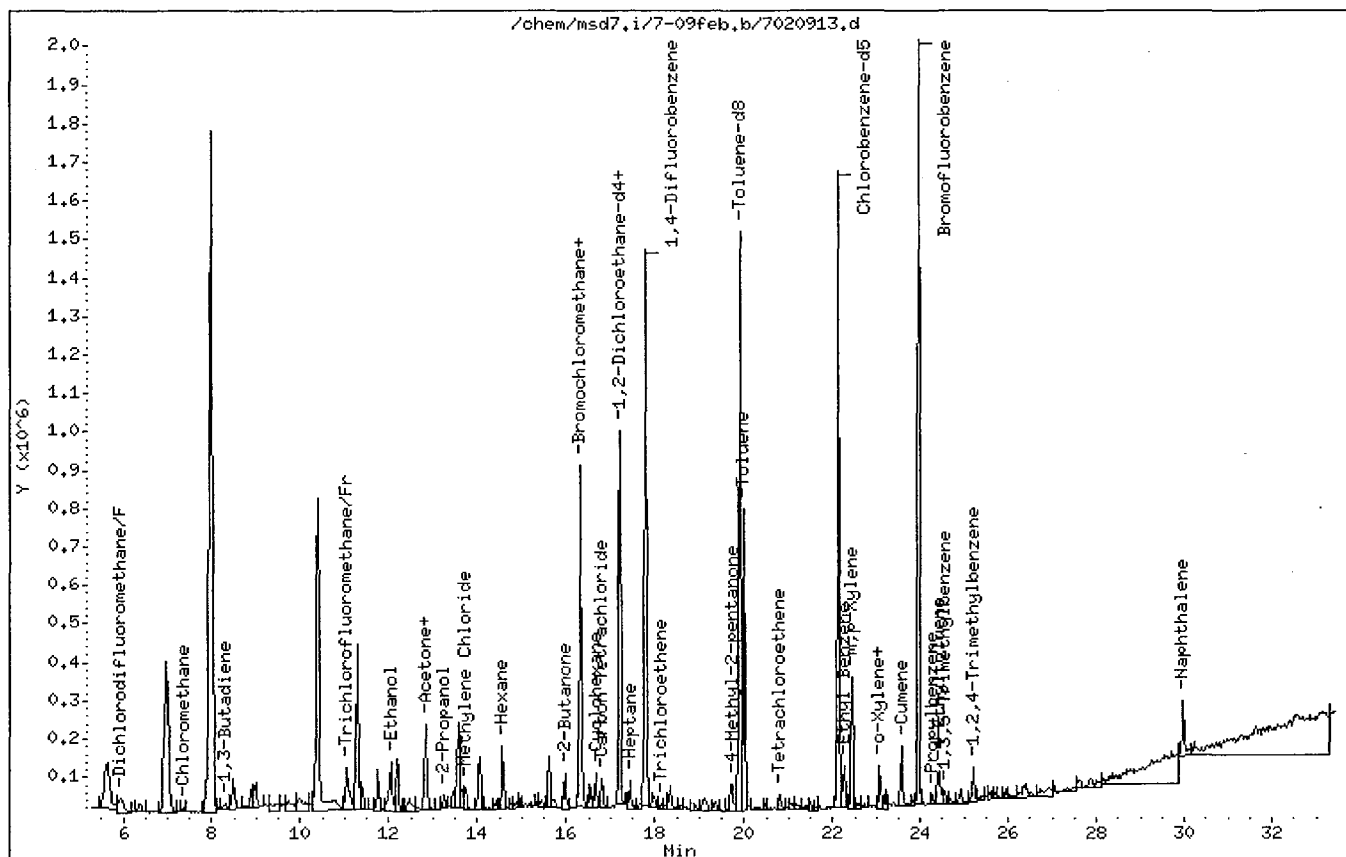
Instrument: msd7.i

Sample Info: 500ml Can# 10794

Operator: nk

Column phase: RTx-624

Column diameter: 0.32



0413

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

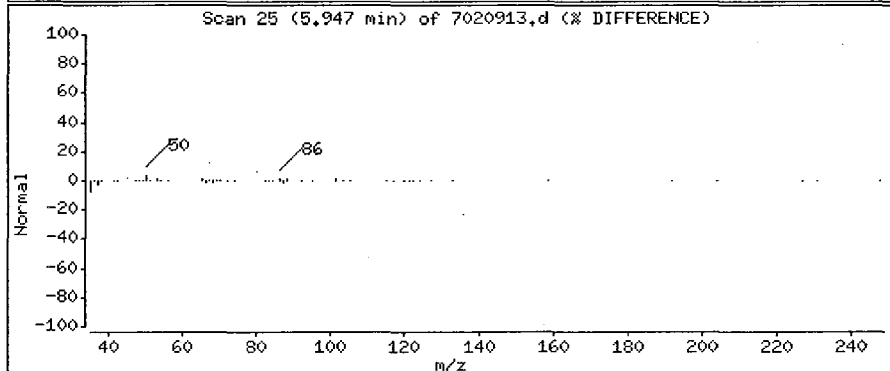
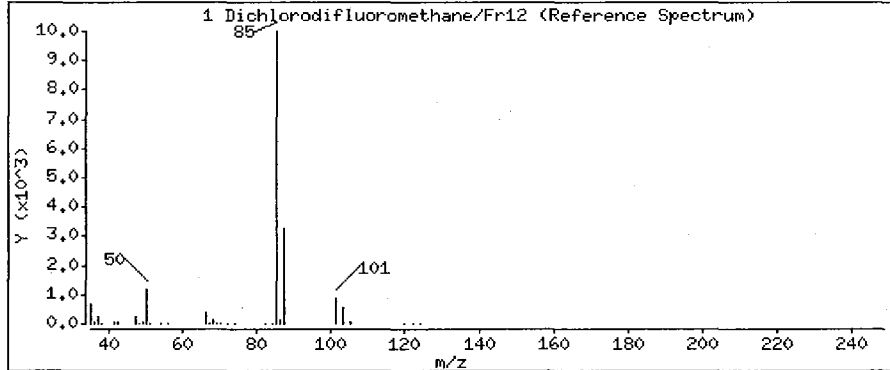
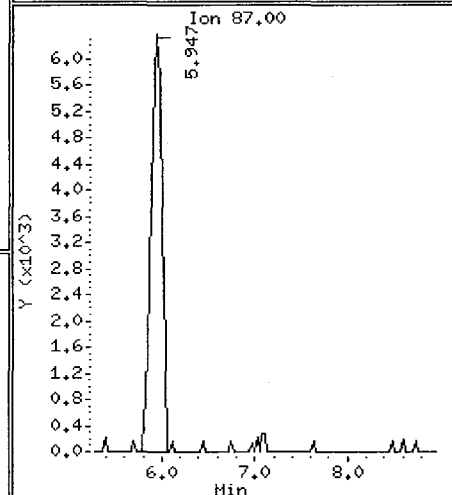
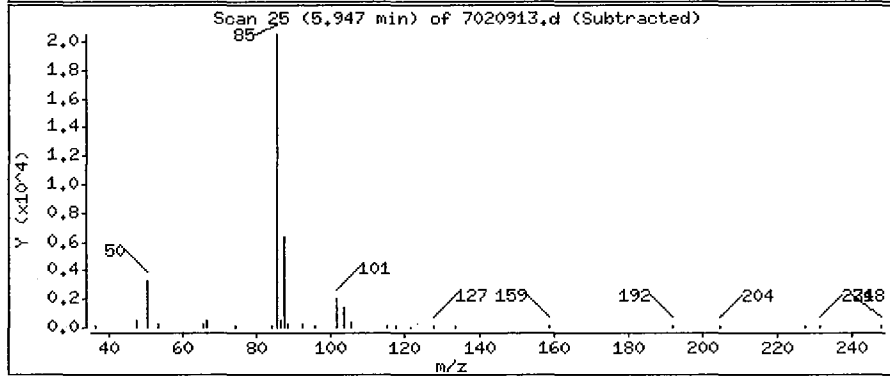
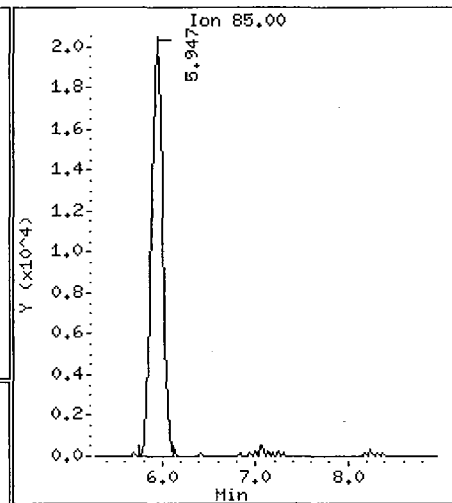
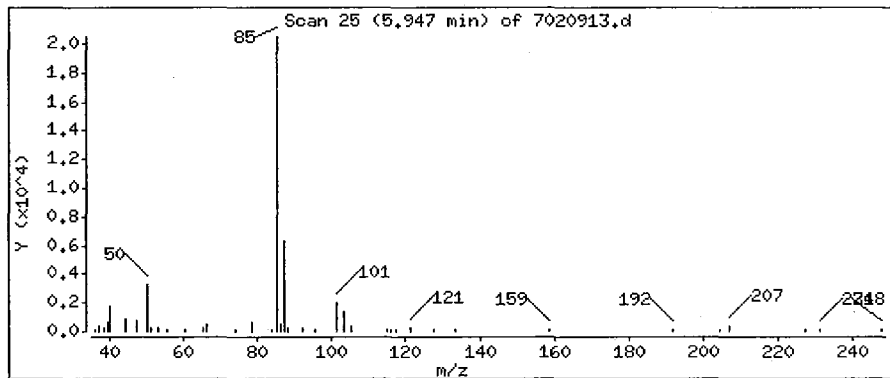
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.7884 PPBV



0414

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

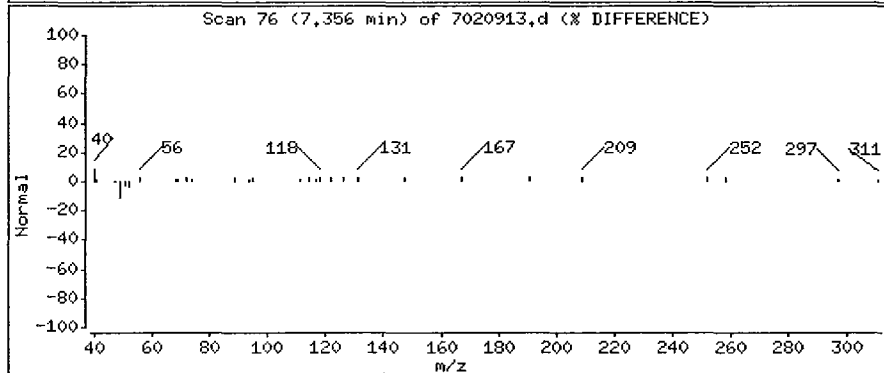
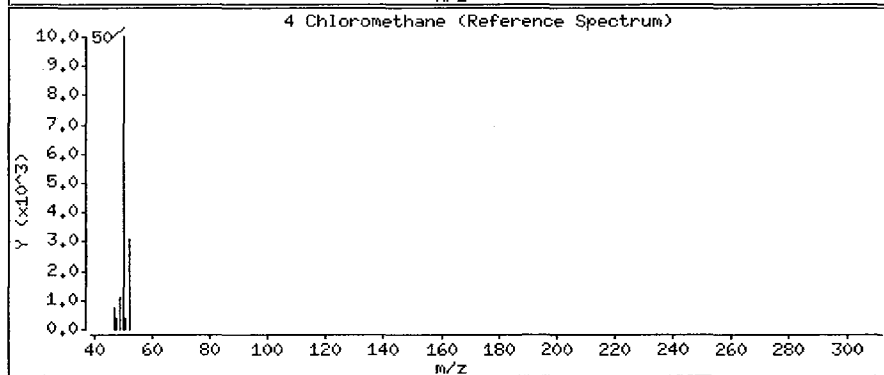
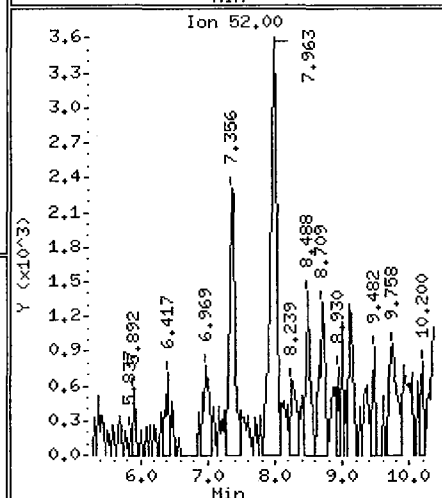
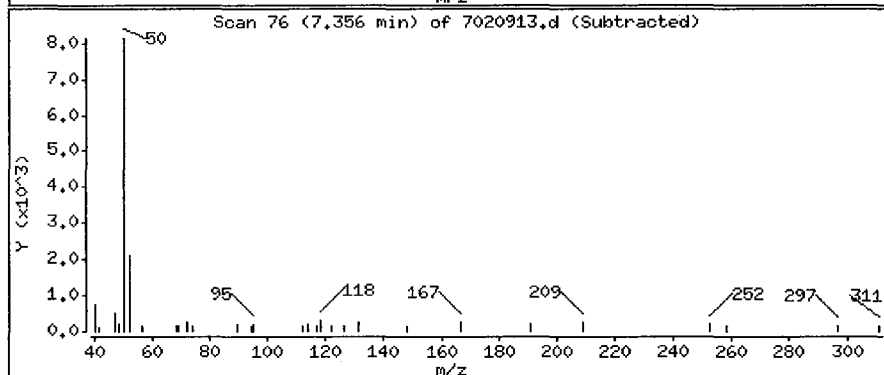
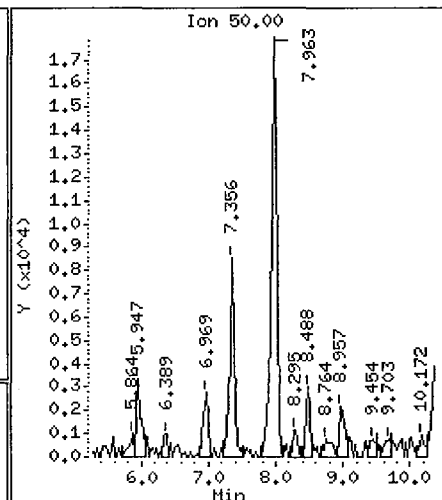
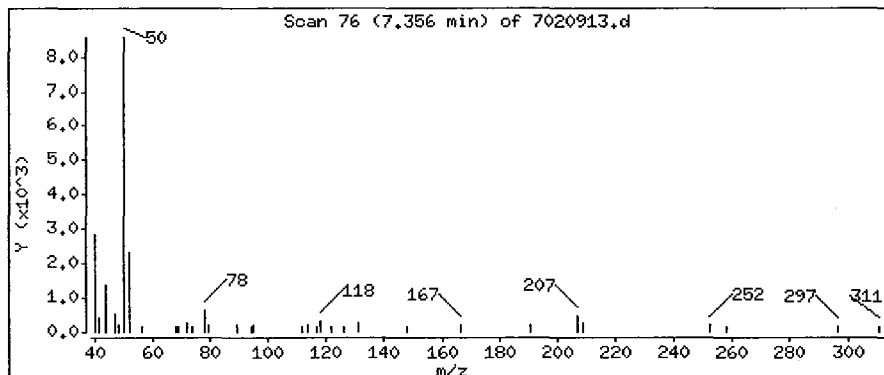
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.6863 PPBV



0415

Date: 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

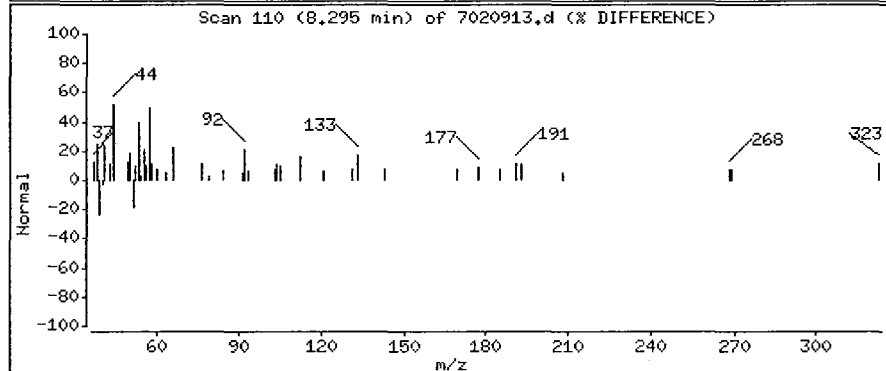
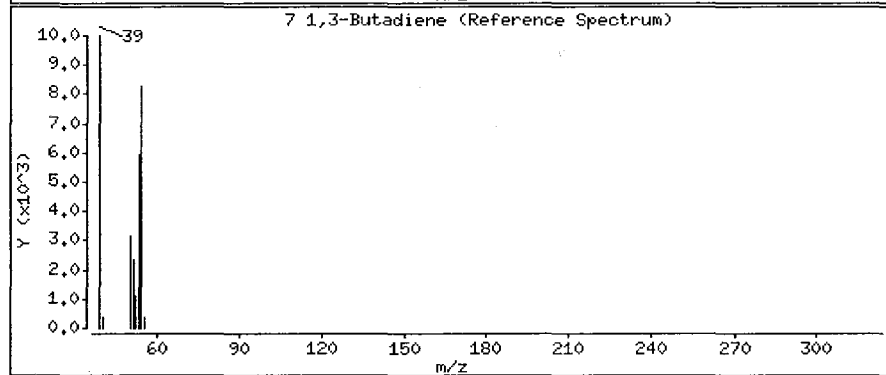
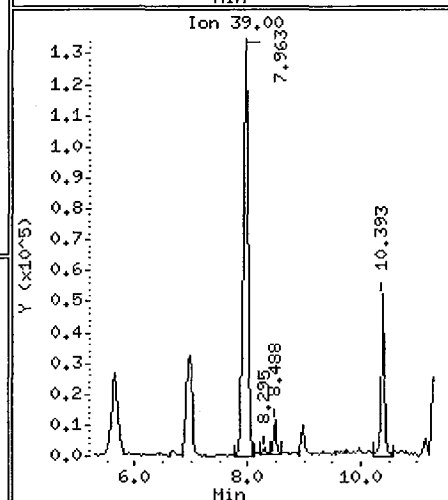
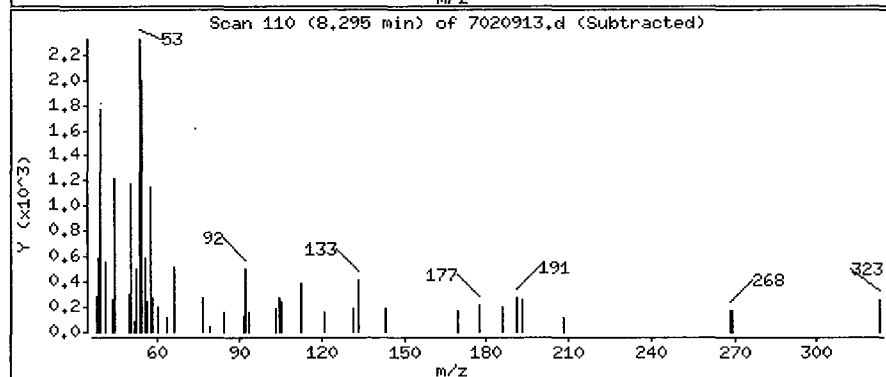
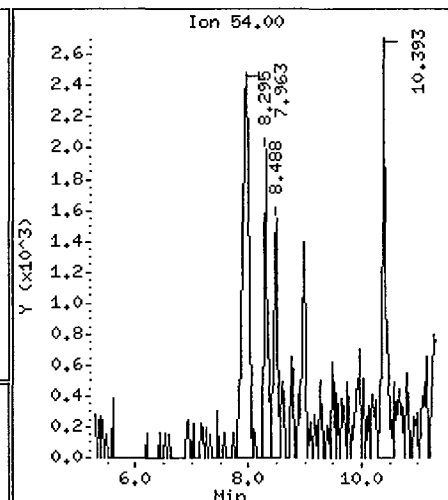
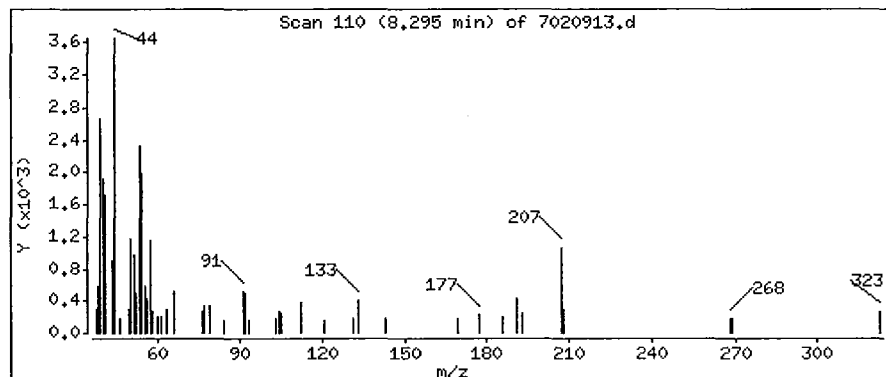
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1760 PPBV



0416

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

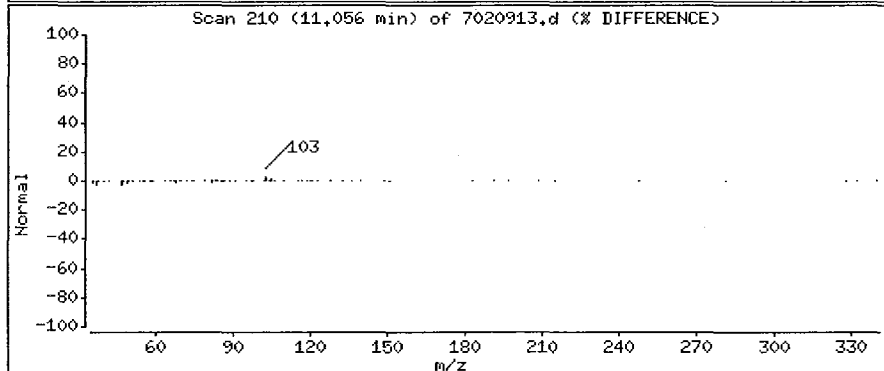
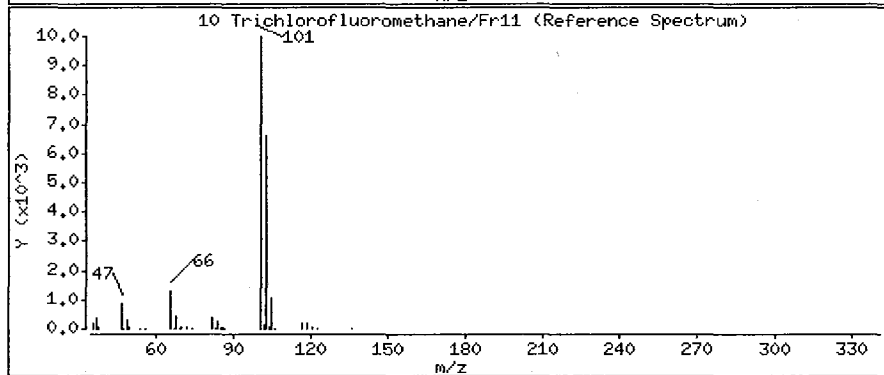
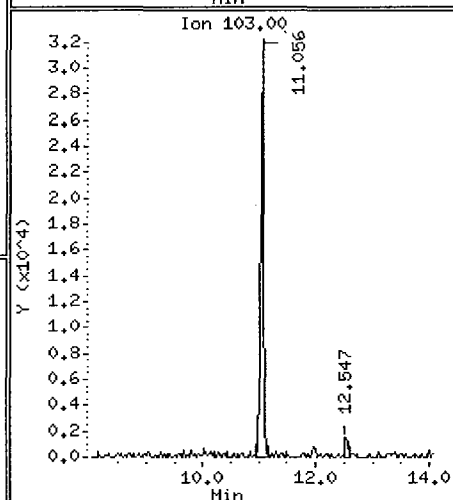
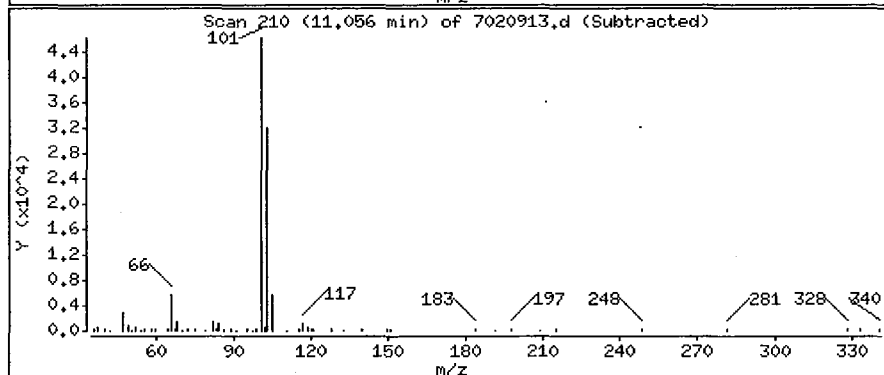
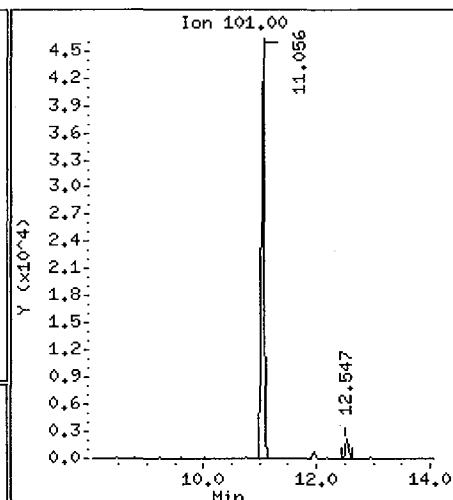
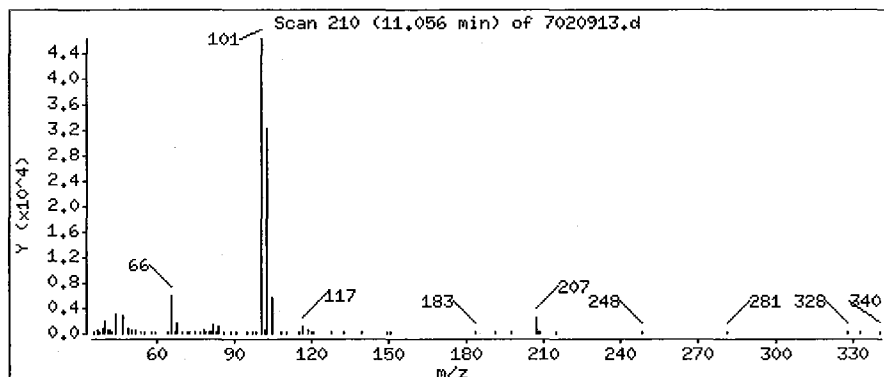
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 1.036 PPBV



0417

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

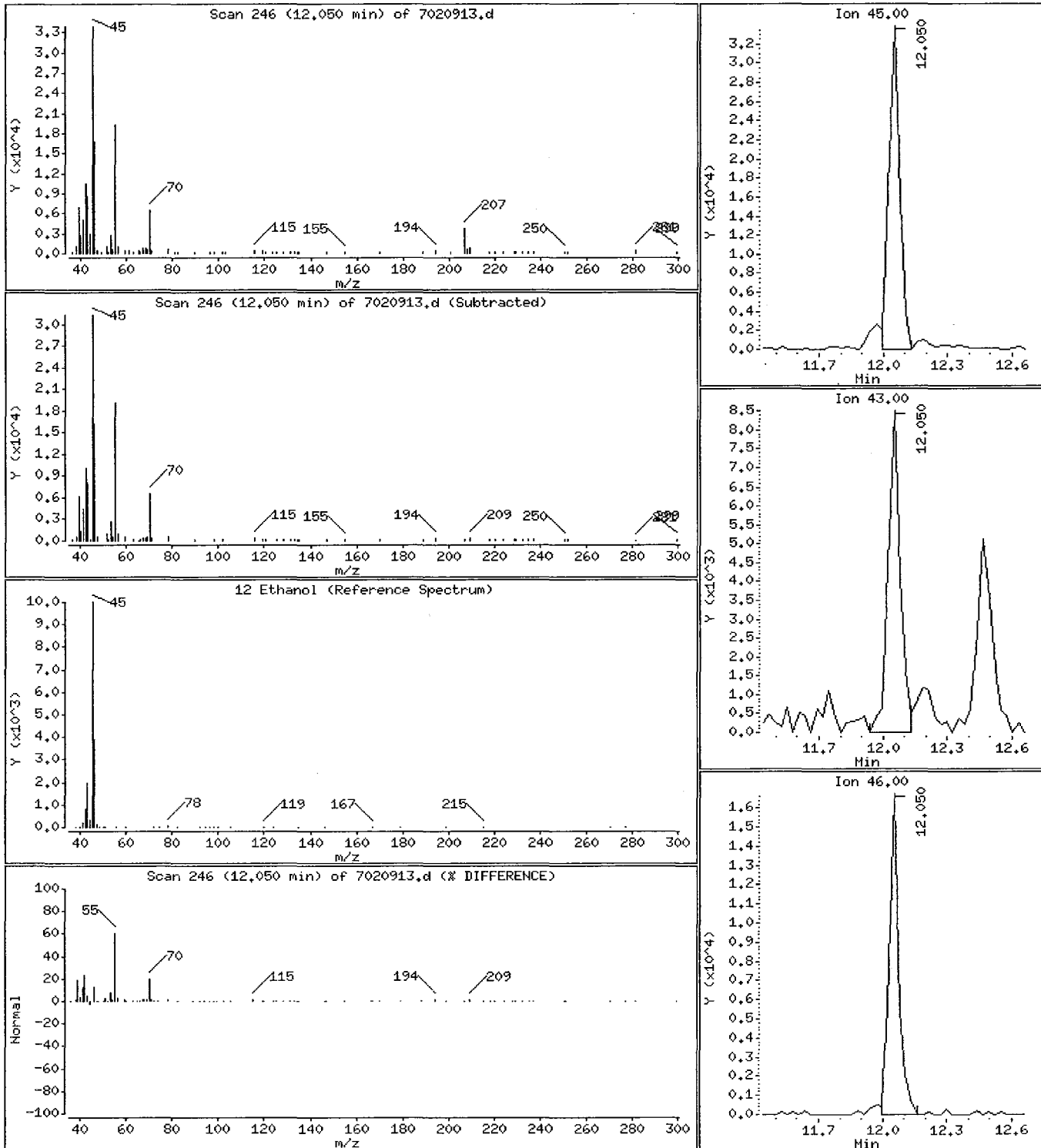
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 4.613 PPBV



0418

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

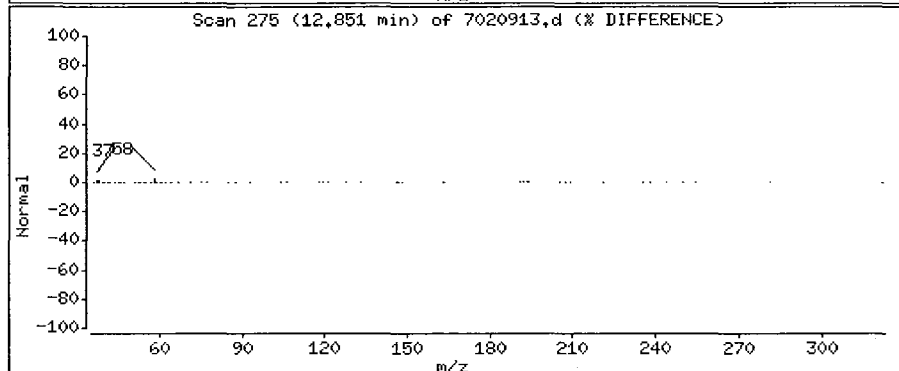
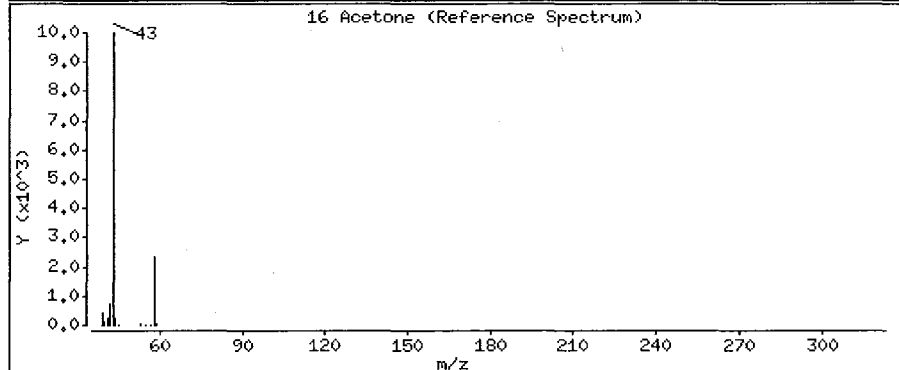
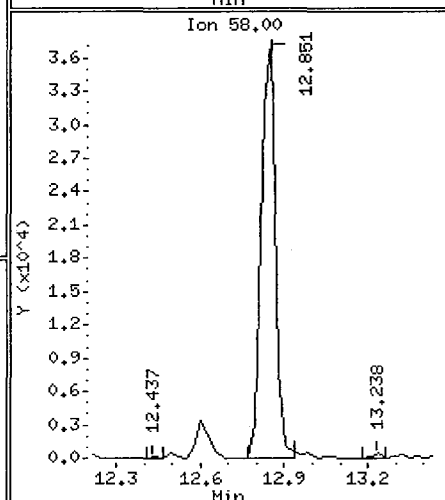
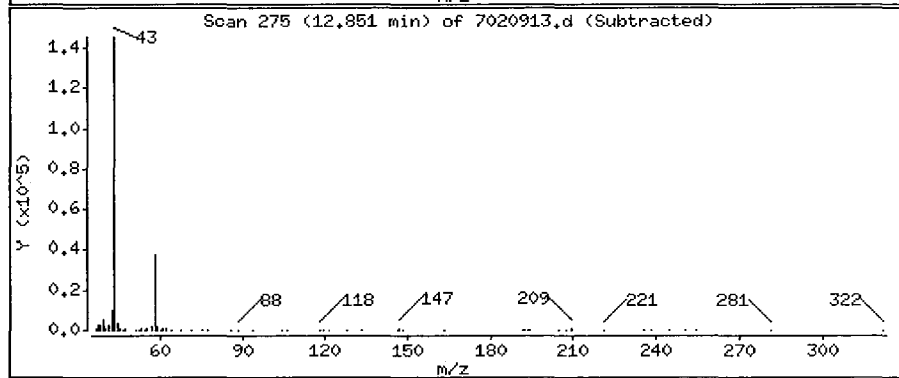
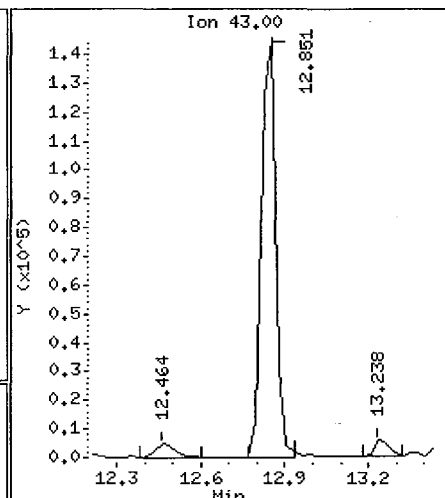
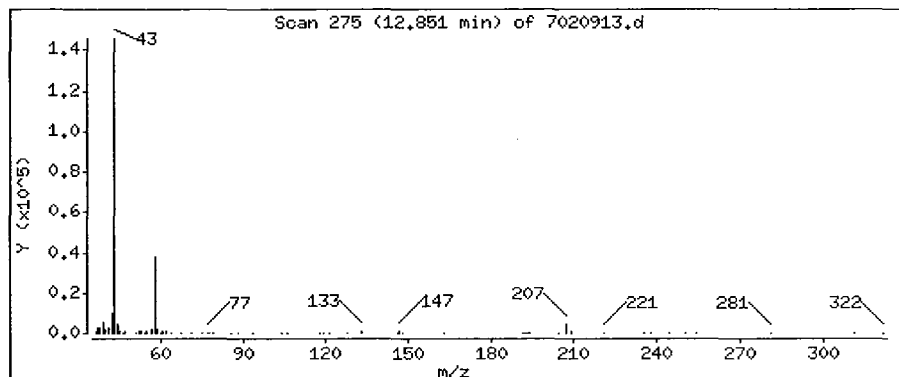
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

16 Acetone

Concentration: 3.819 PPBV



0419

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

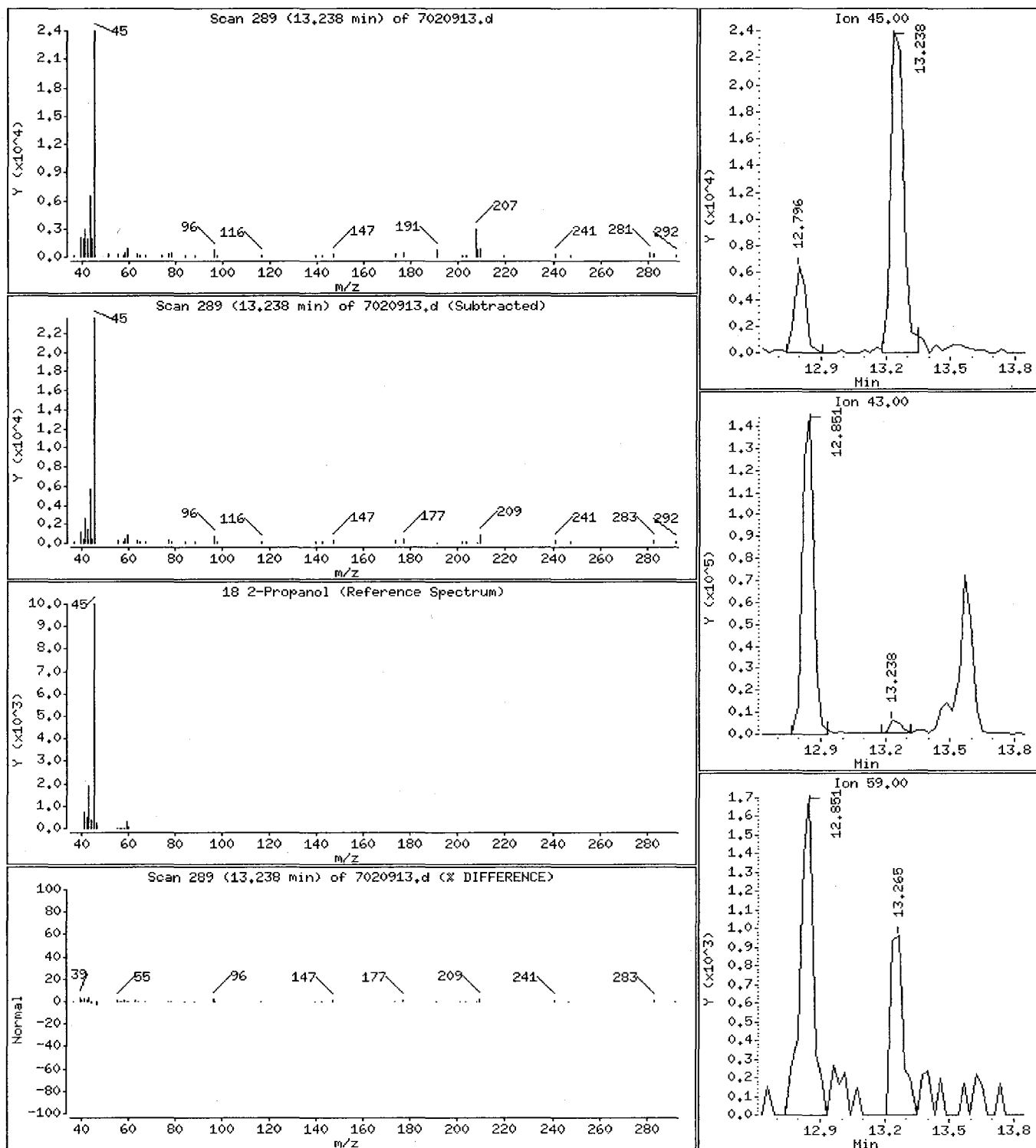
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

18 2-Propanol

Concentration: 0.7630 PPEV



0420

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

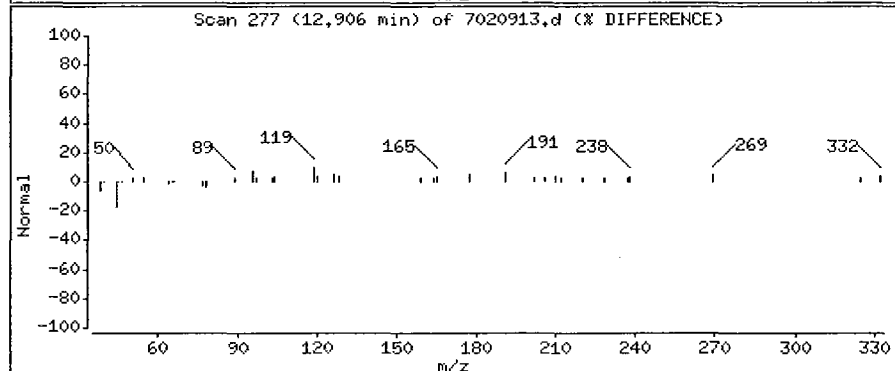
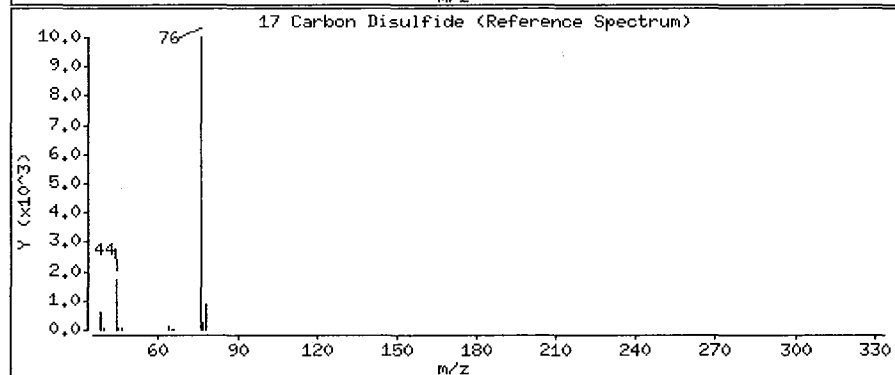
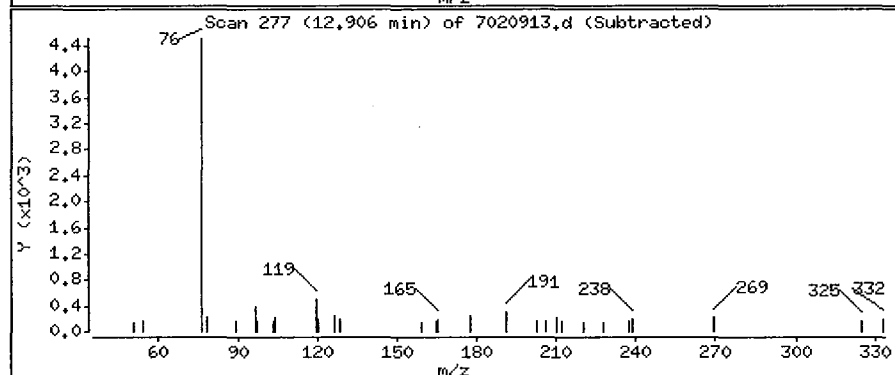
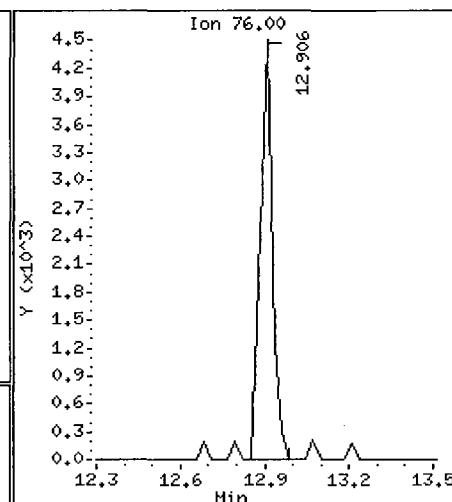
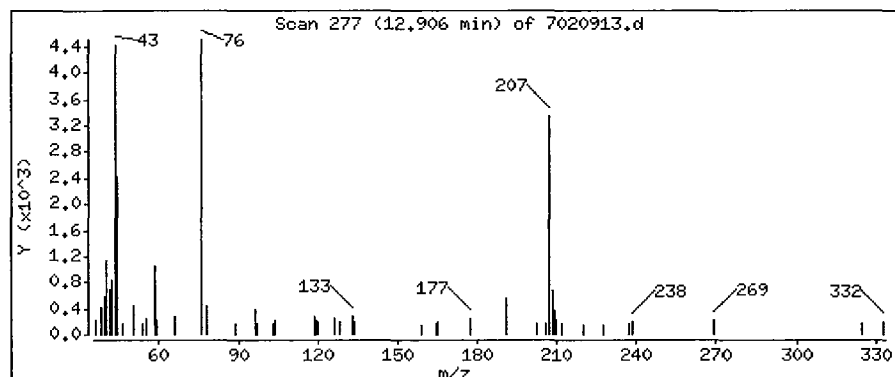
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.07708 PPBV



0421

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

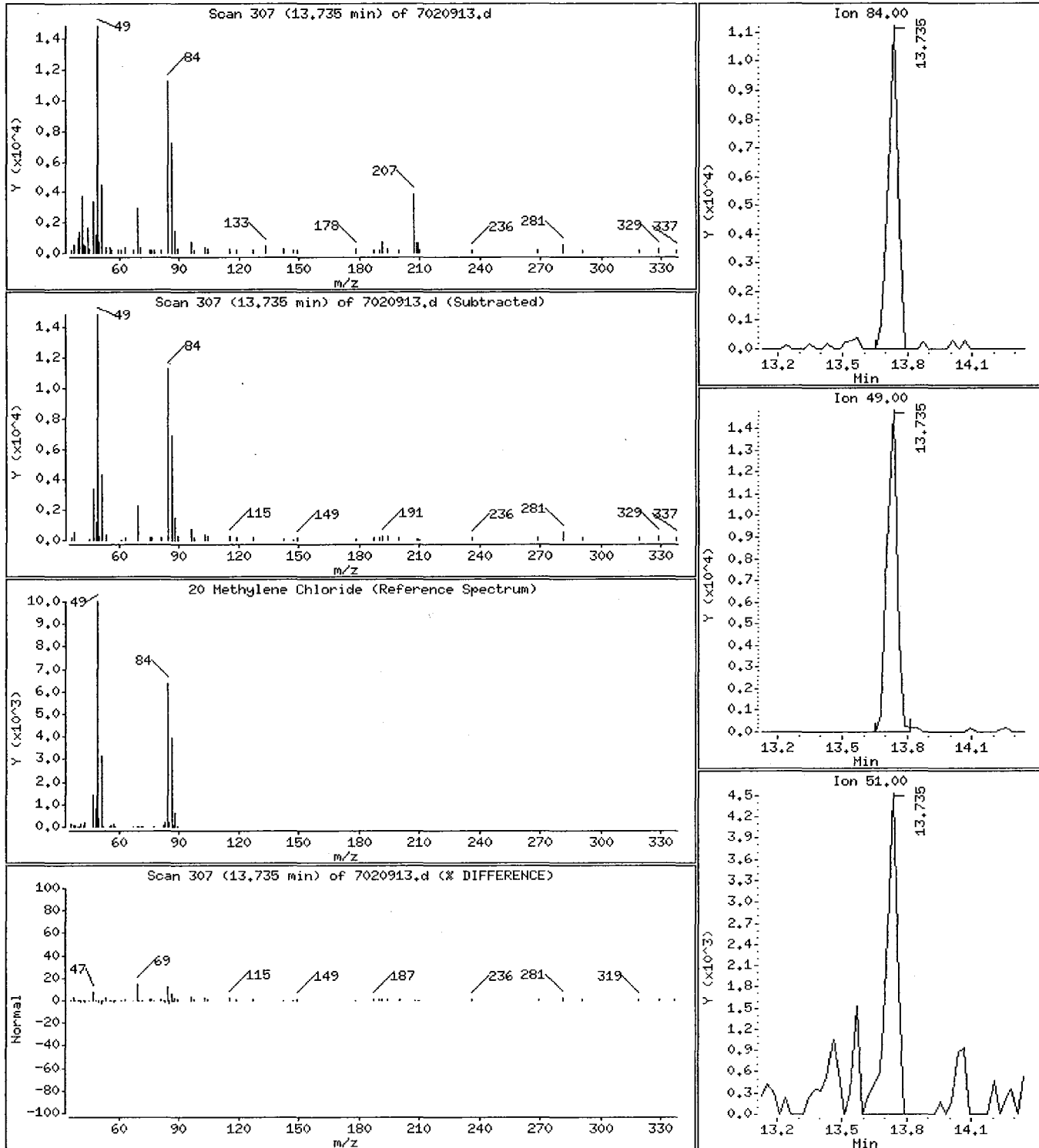
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.6460 PPBV



0422

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

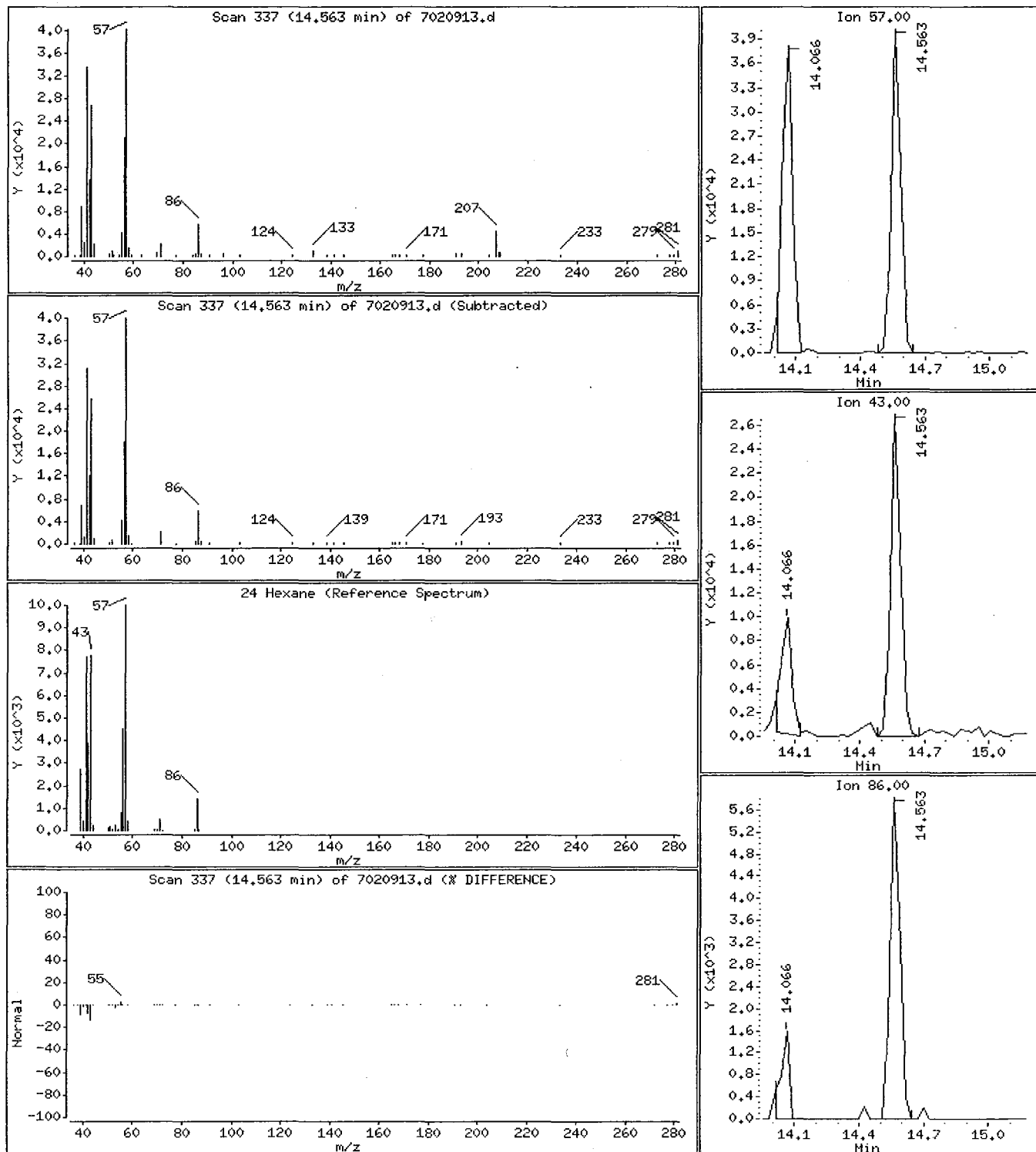
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 1,156 PPBV



0423

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

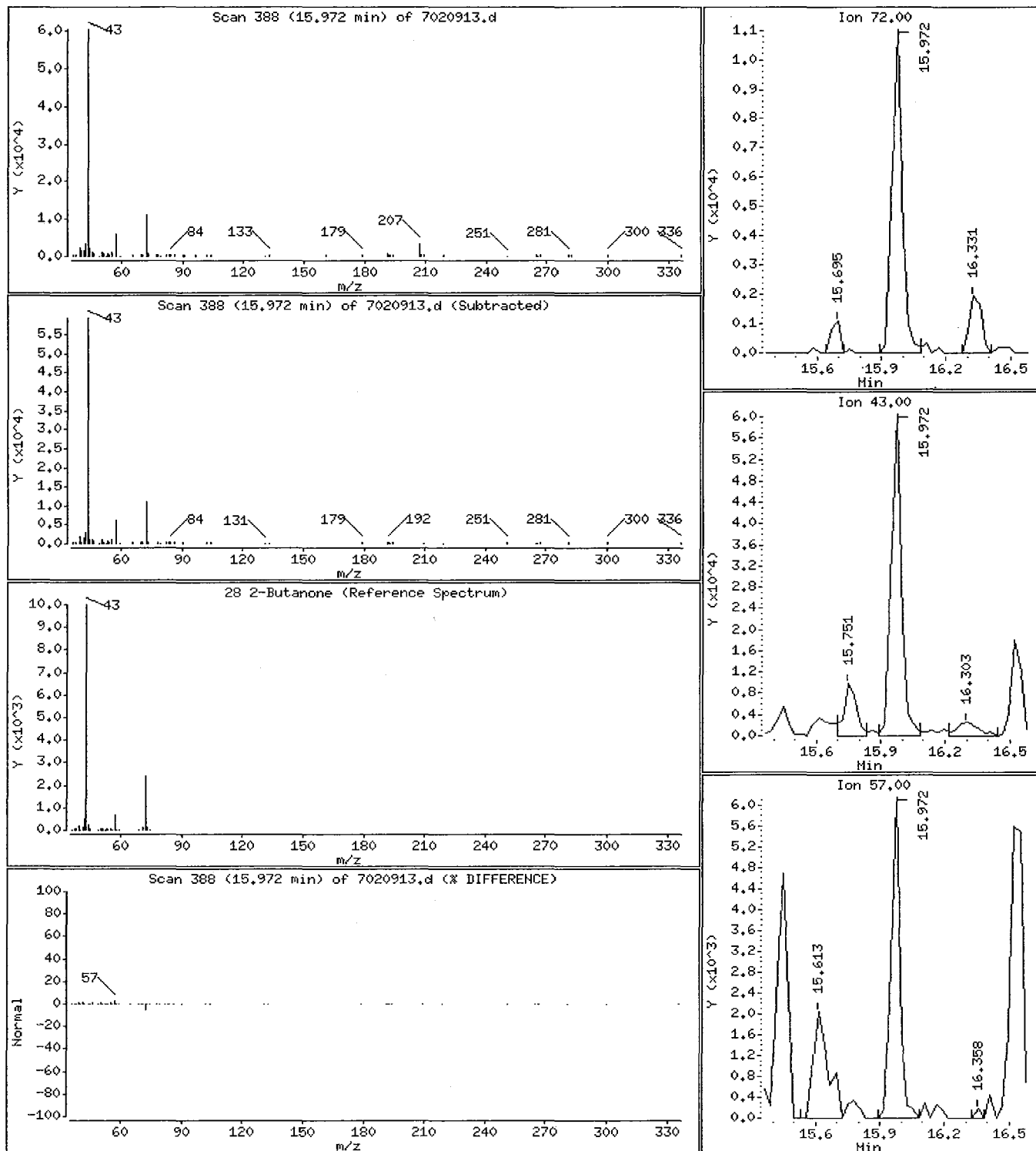
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.264 PPBV



0424

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

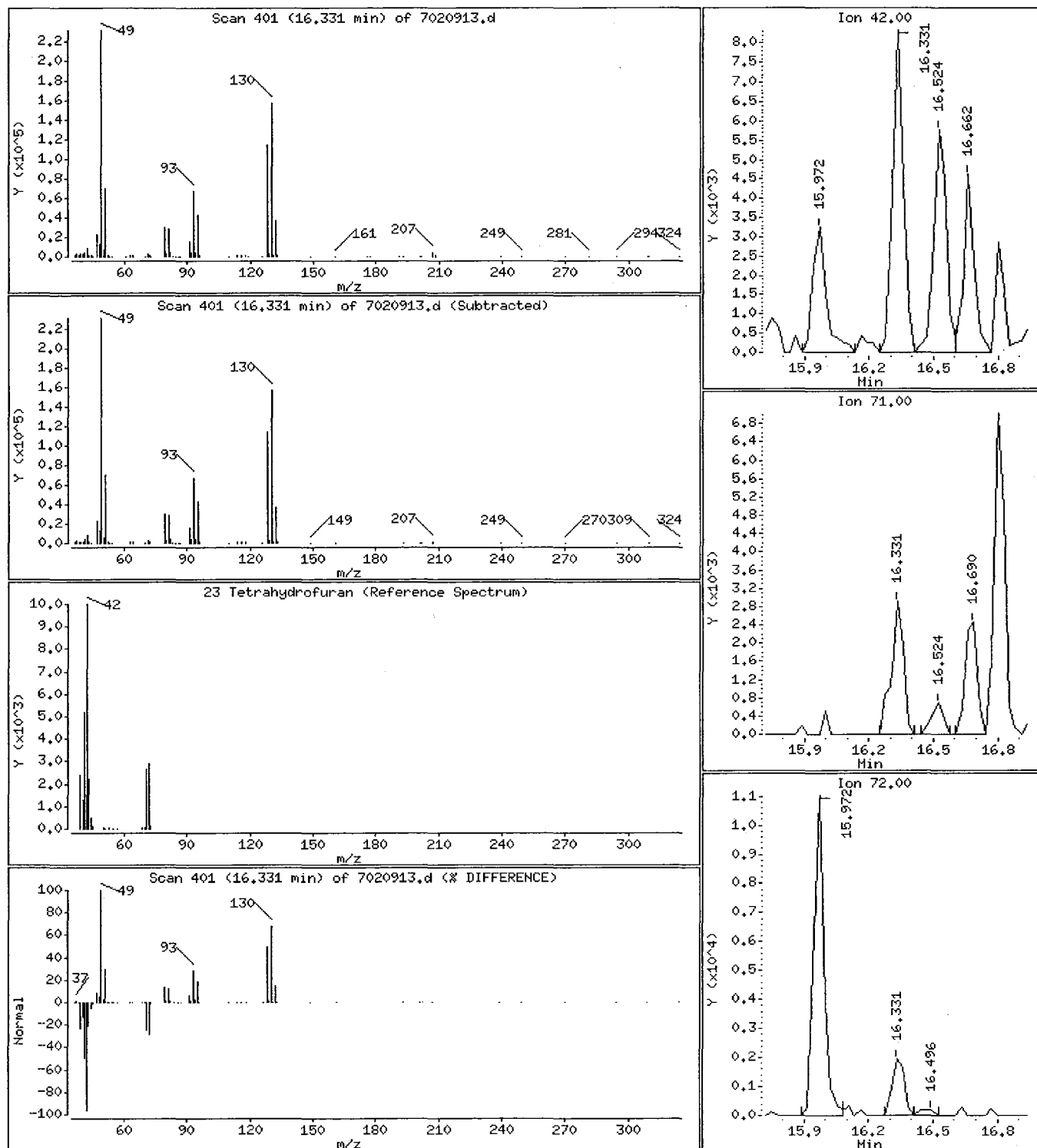
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.3653 PPBV



0425

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

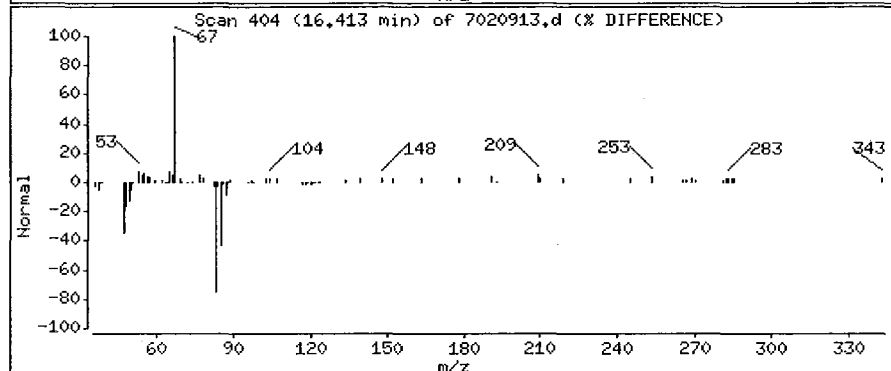
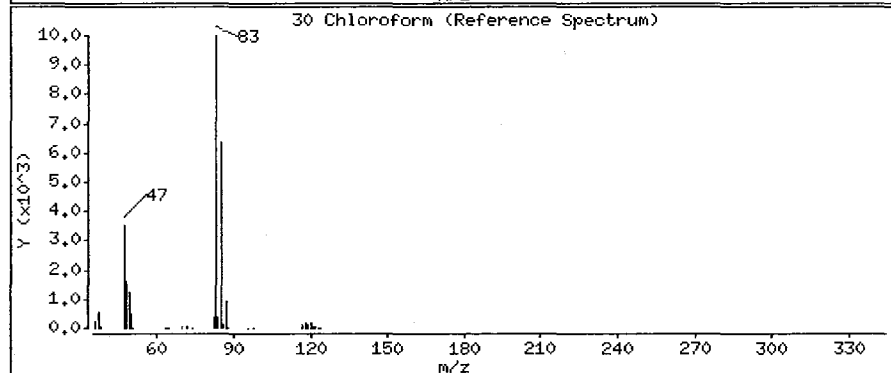
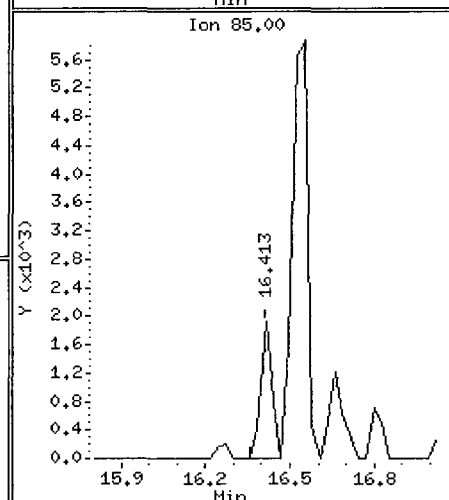
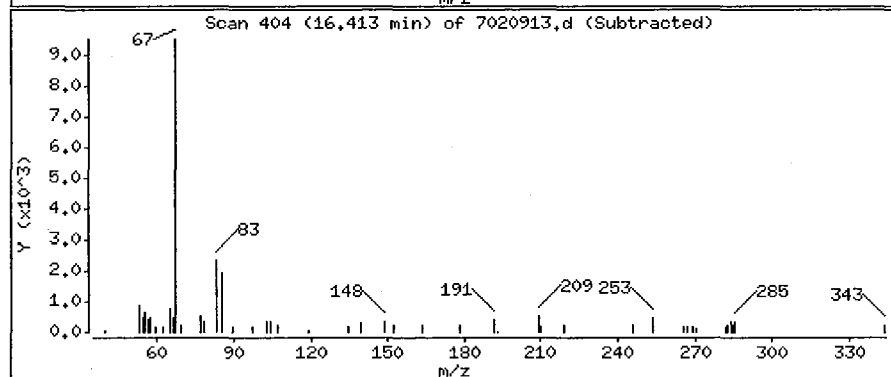
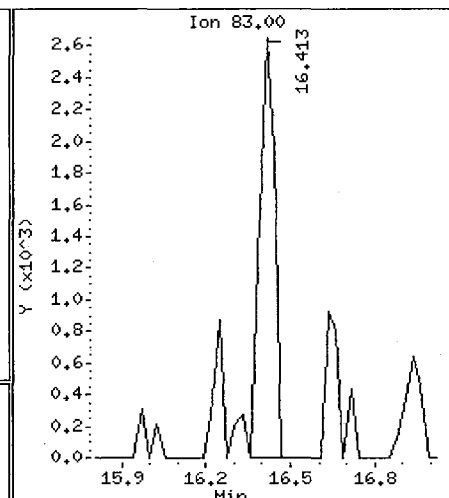
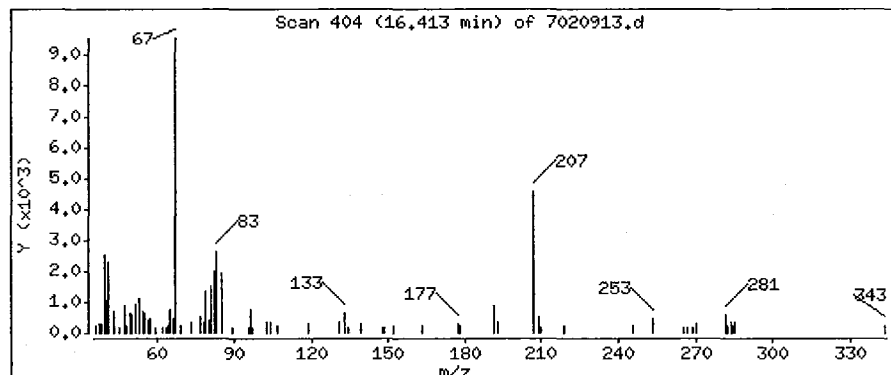
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

30 Chloroform

Concentration: 0.07711 PPBV



0426

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

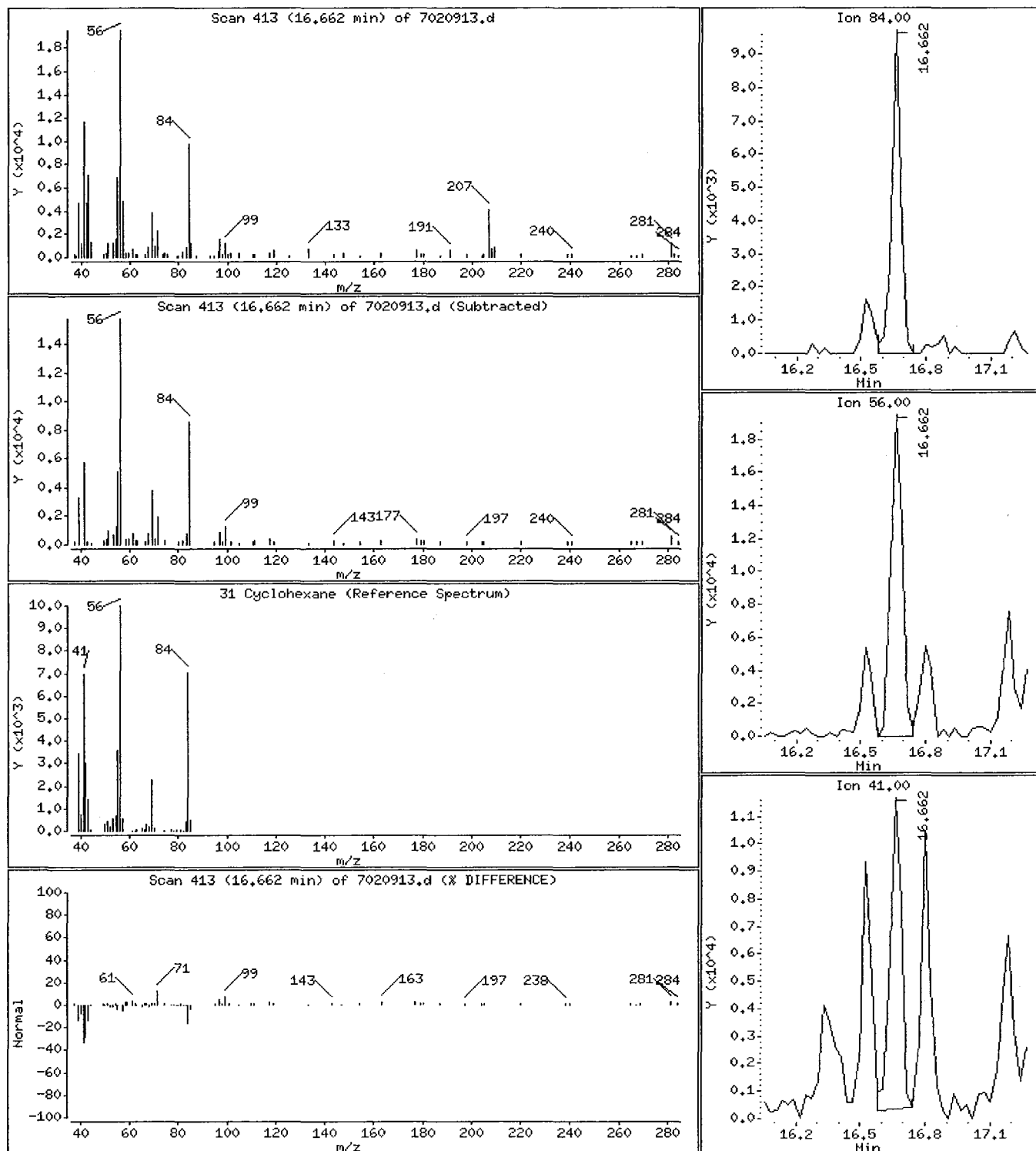
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.4962 PPBV



0427

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

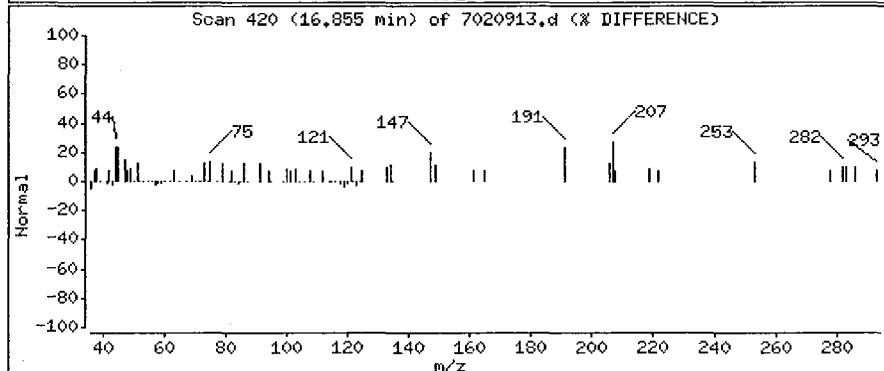
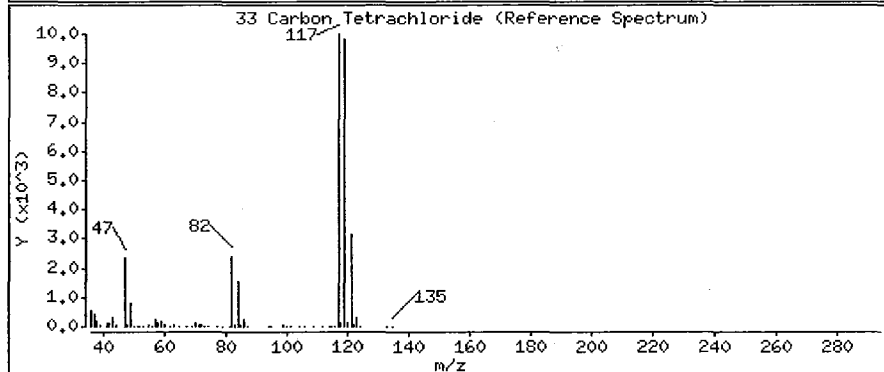
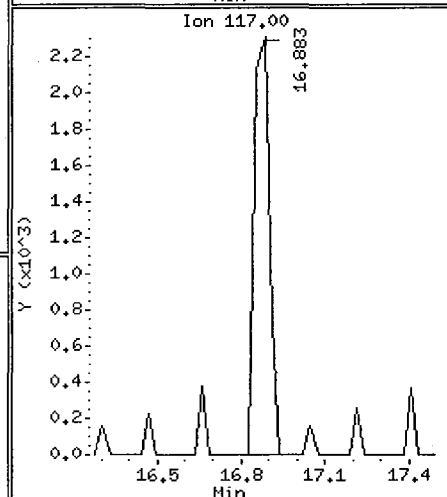
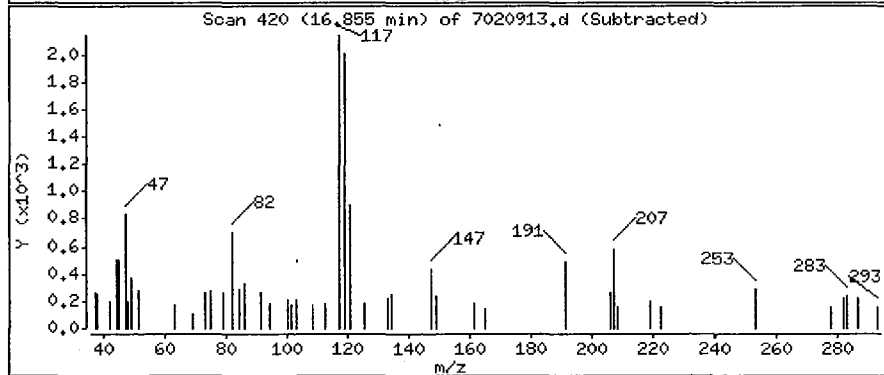
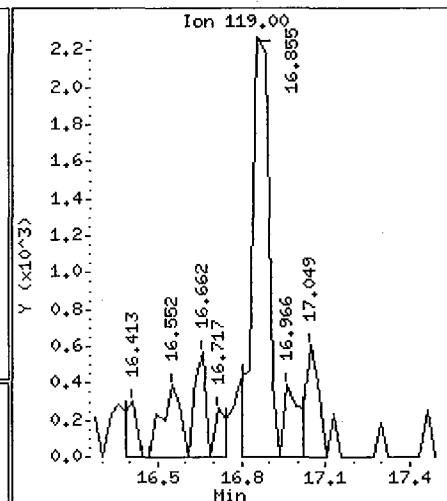
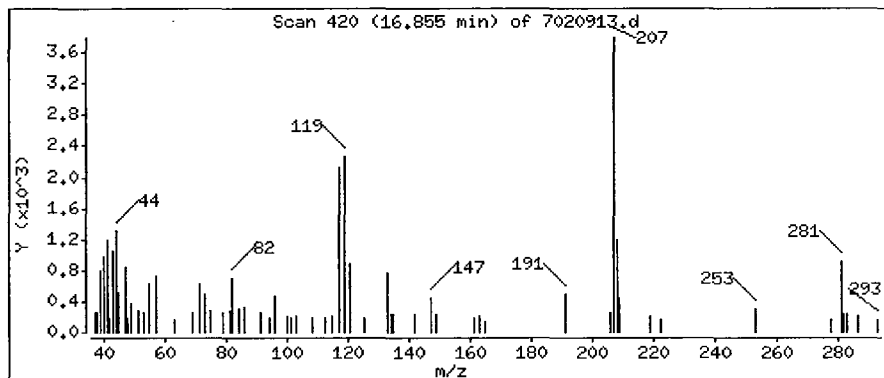
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1014 PPBV



0428

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

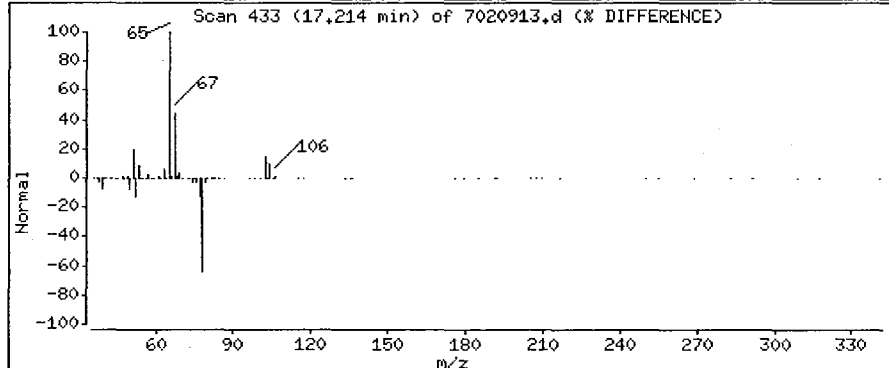
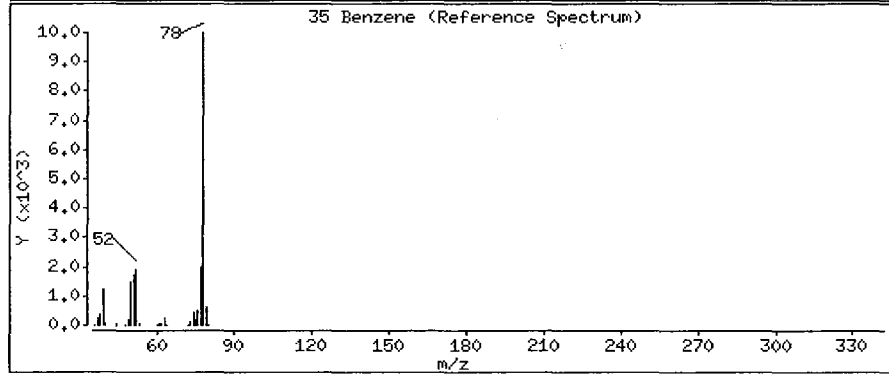
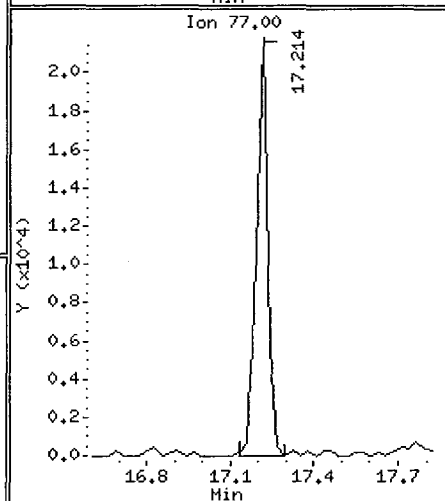
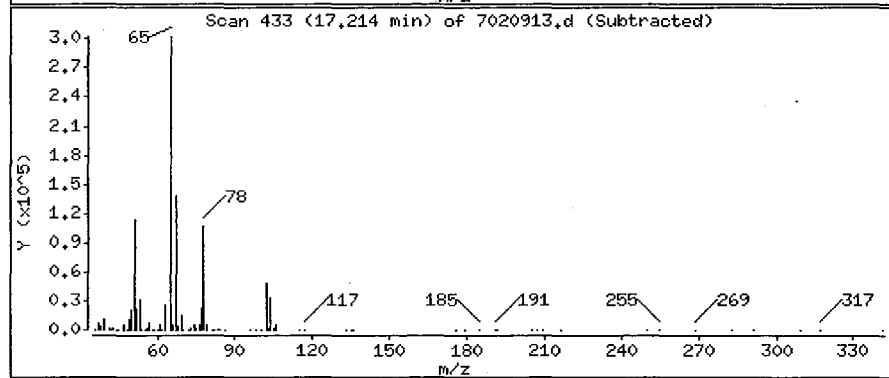
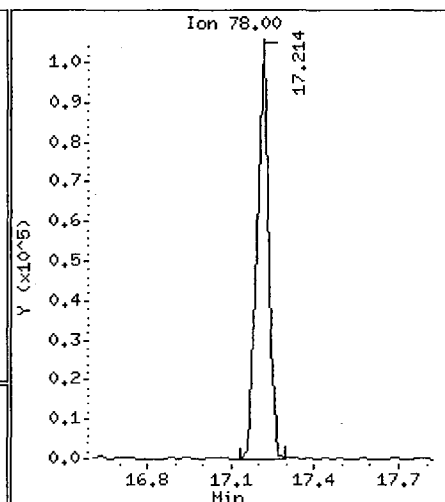
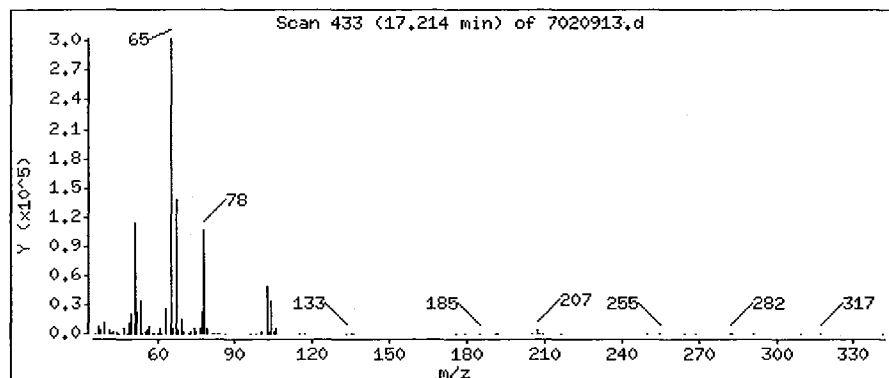
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1,701 PPBV



0429

SCOEPAA00032101

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

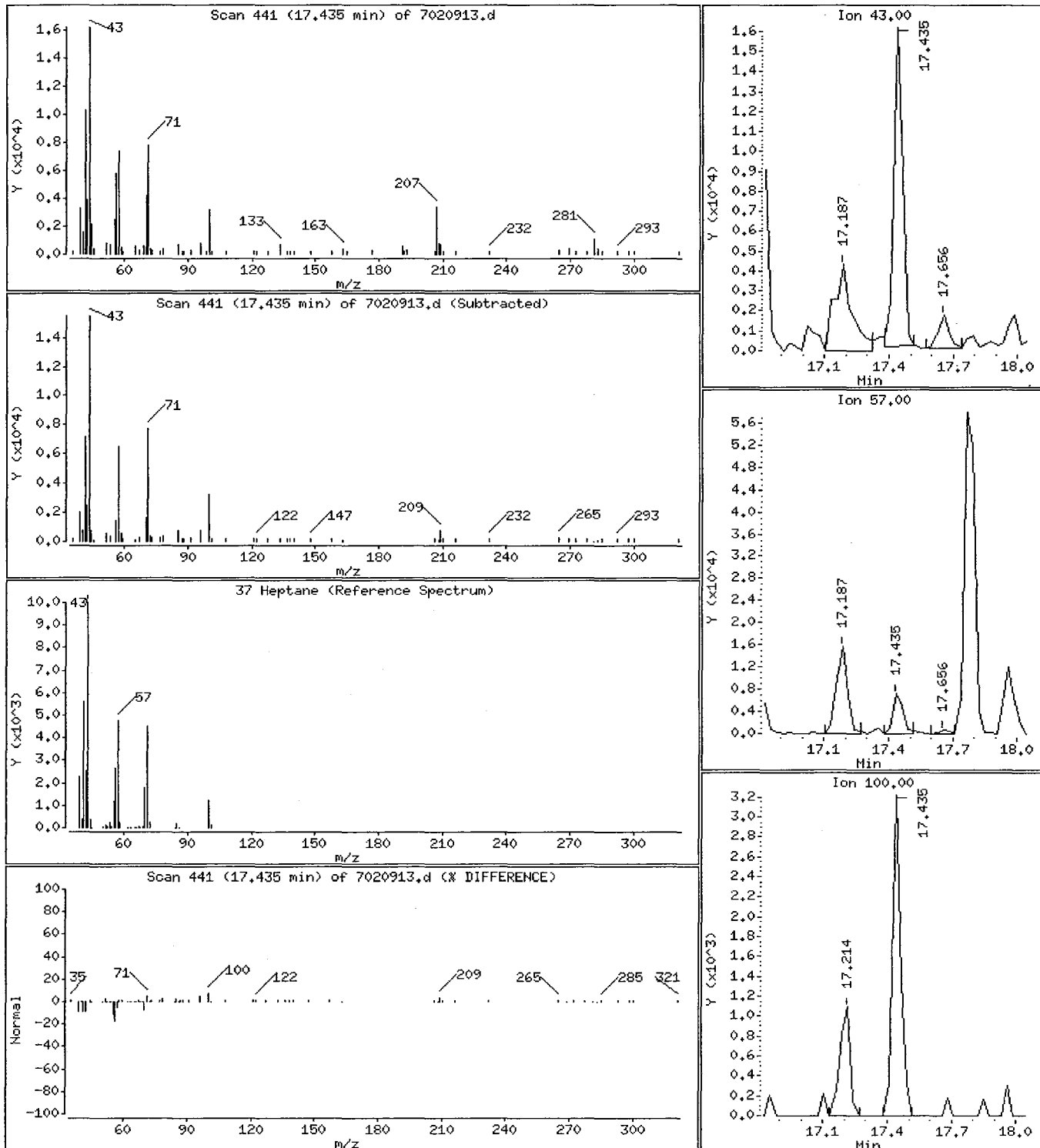
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.4496 PPBV



0430

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

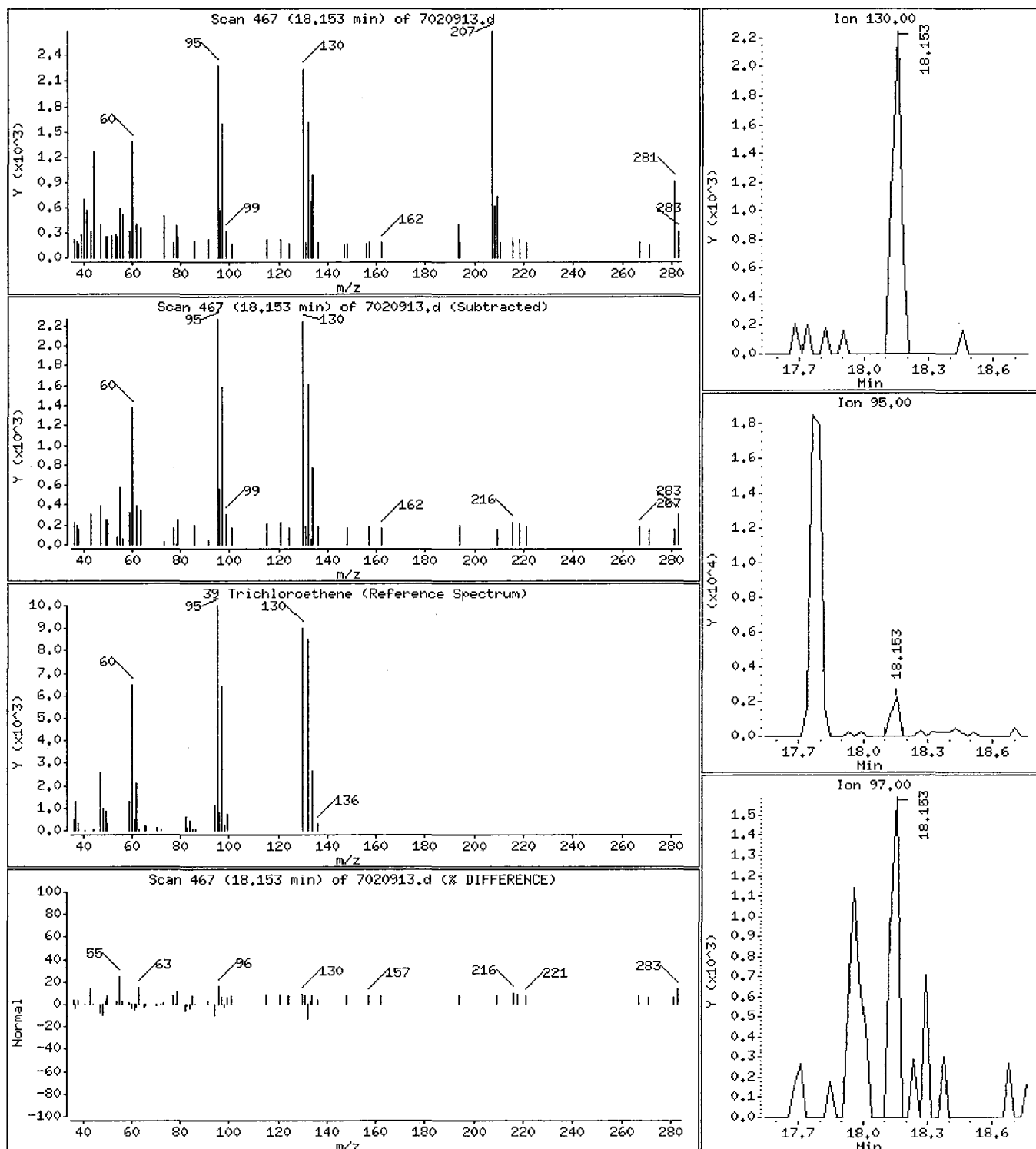
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

39 Trichloroethene

Concentration: 0.1077 PPBV



0431

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

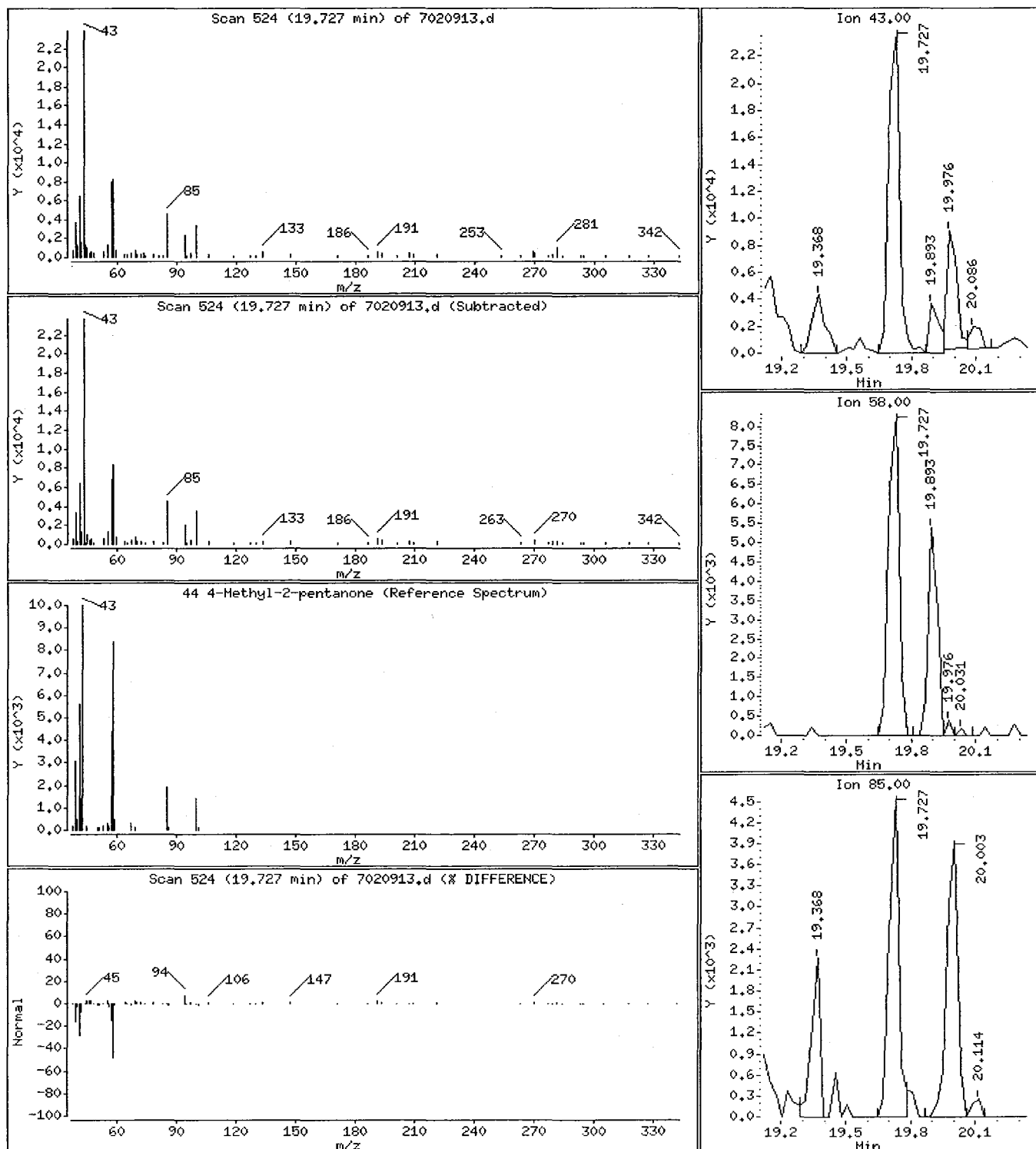
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.7276 PPBV



0432

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

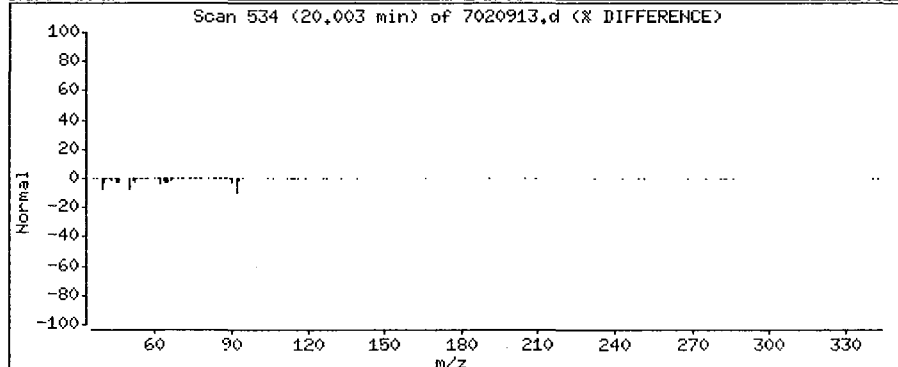
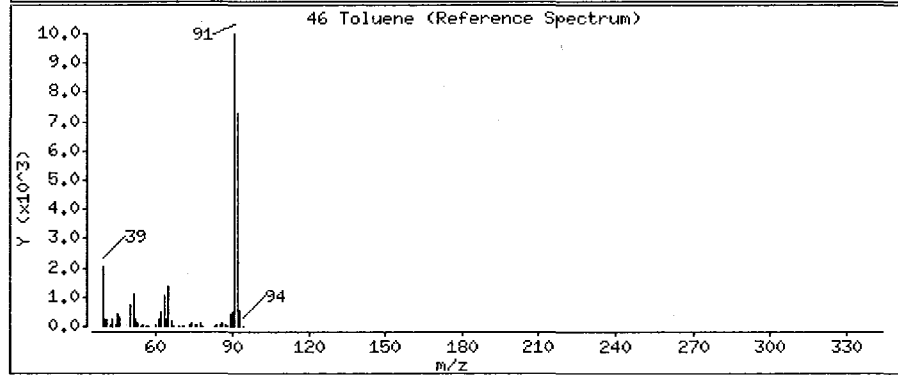
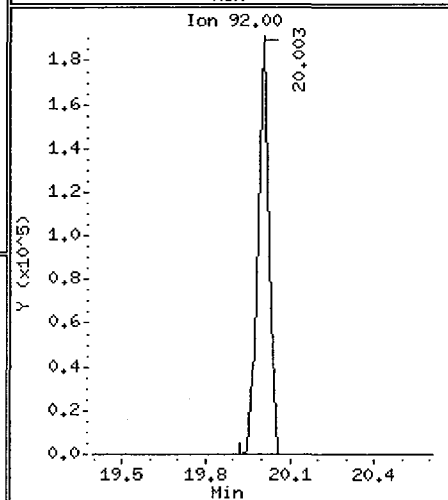
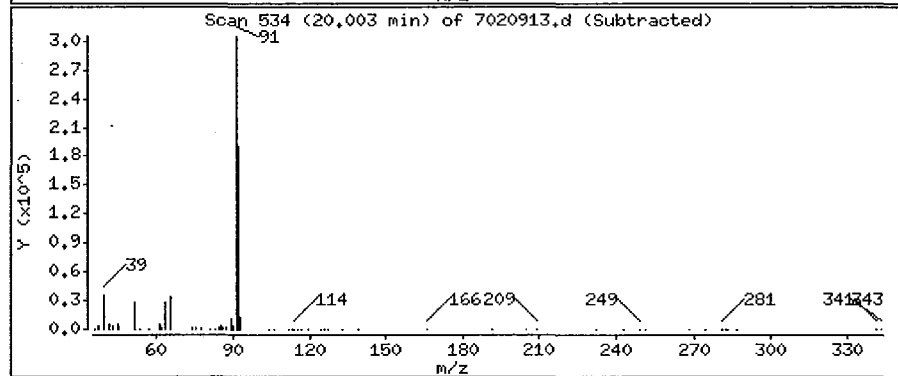
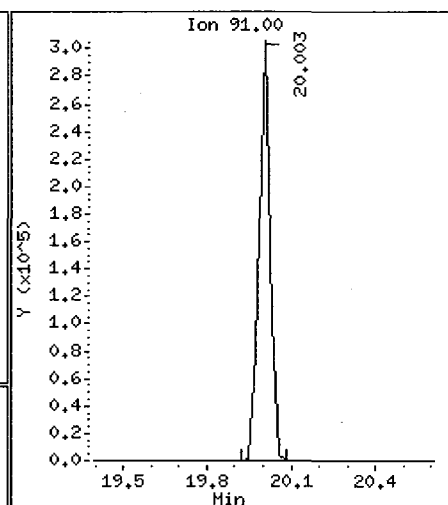
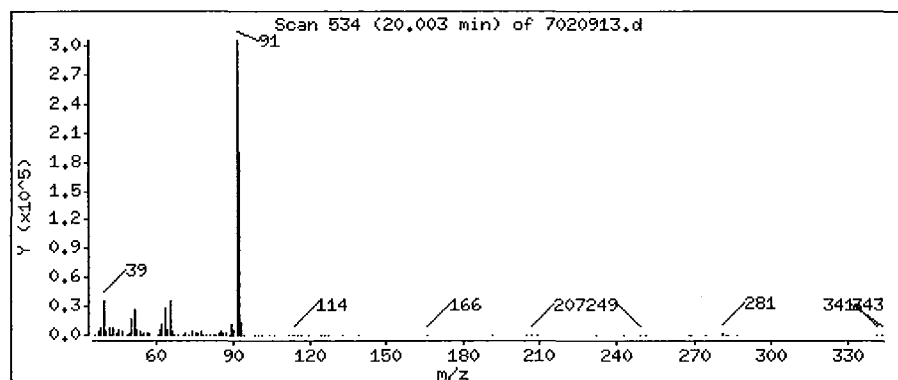
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 4.050 PPBV



0433

Date: 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

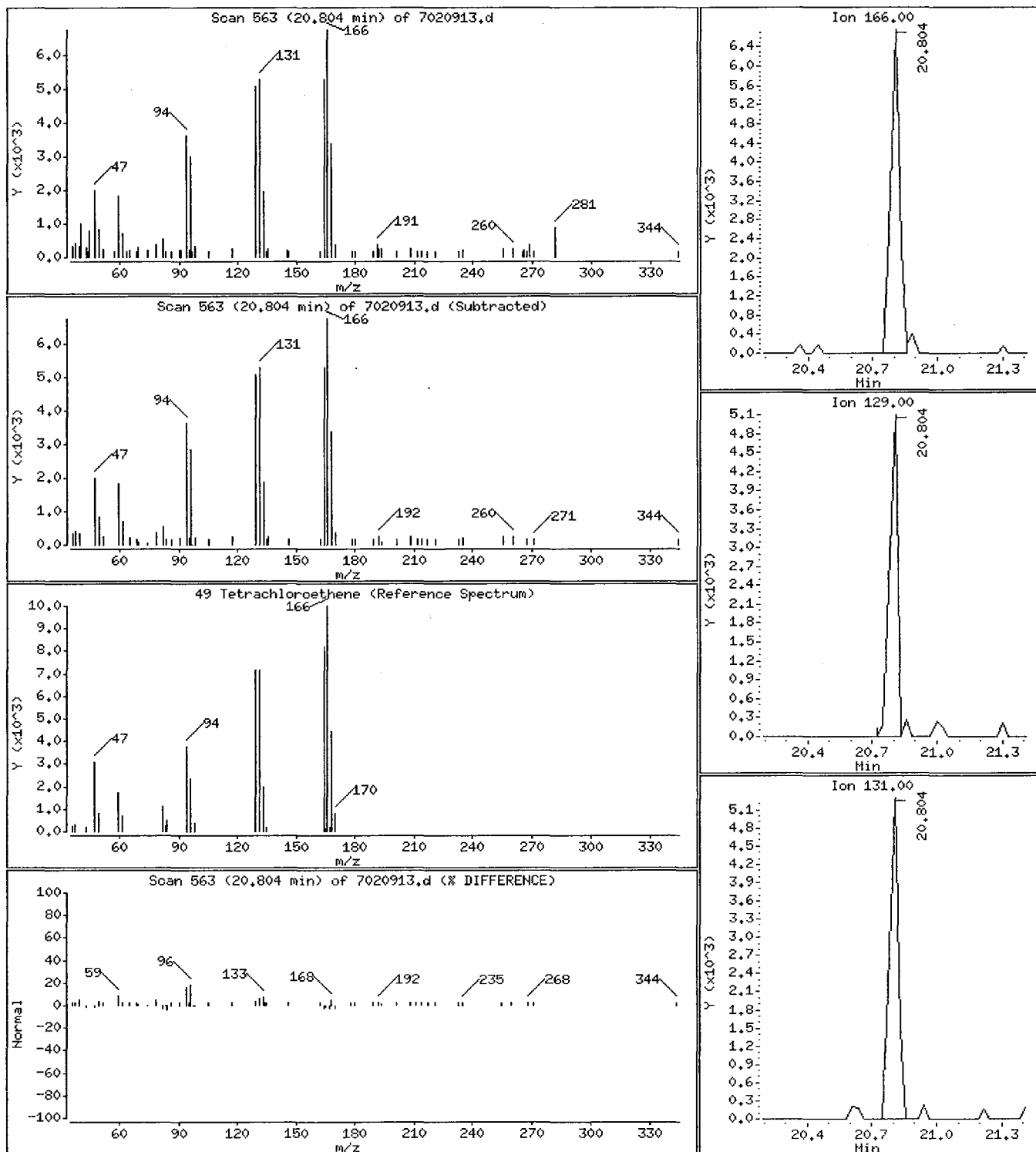
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

49 Tetrachloroethene

Concentration: 0.2617 PPBV



0434

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

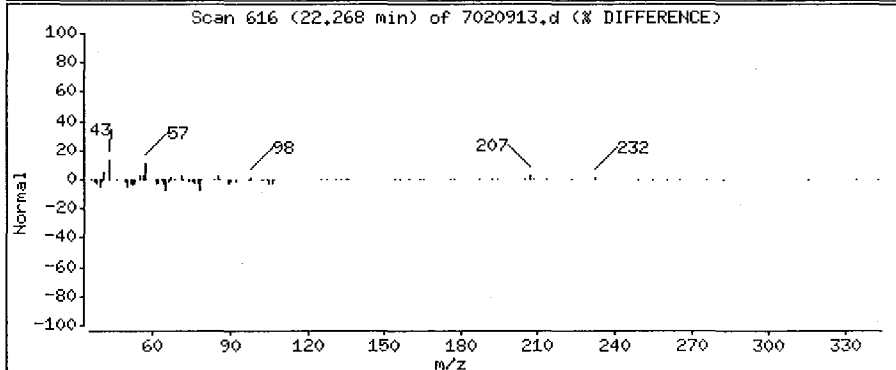
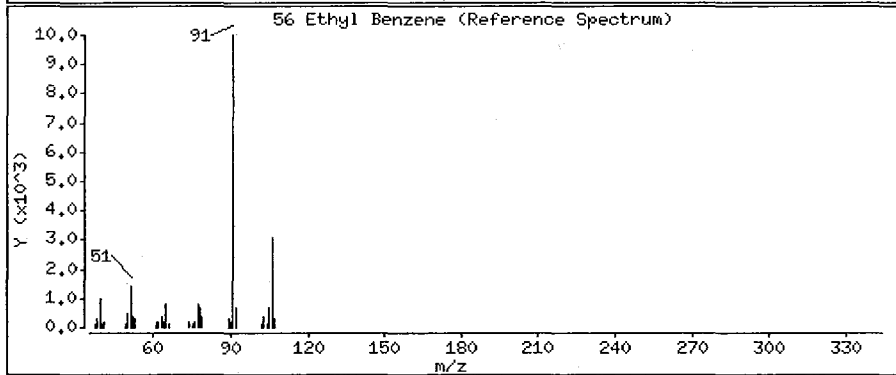
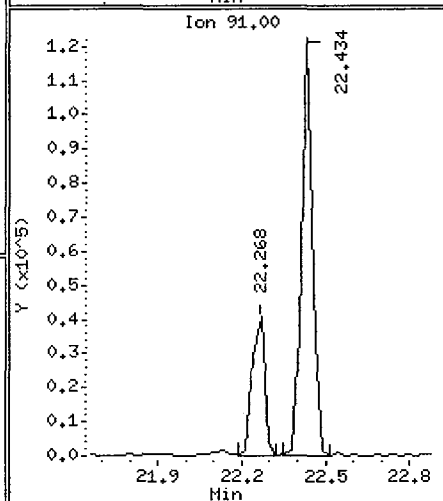
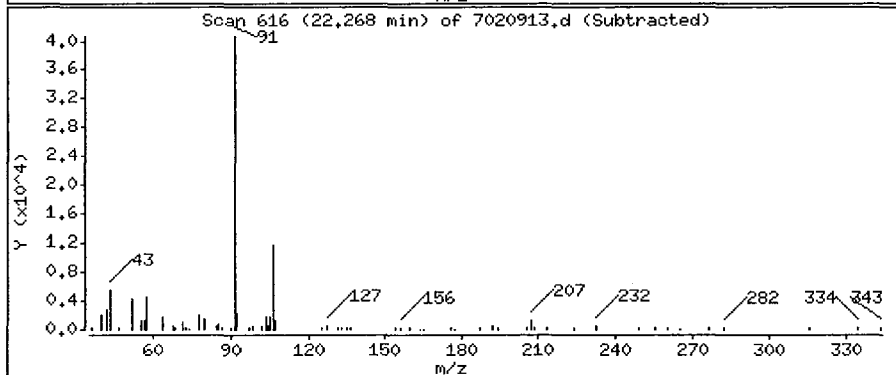
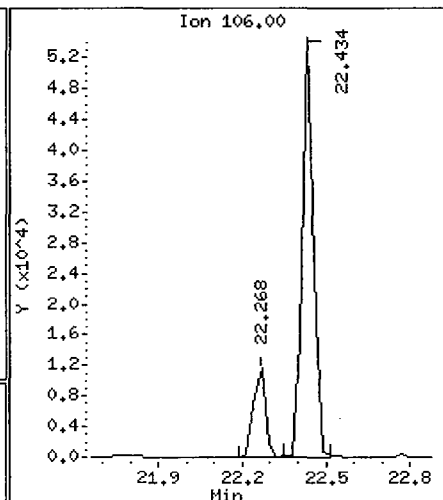
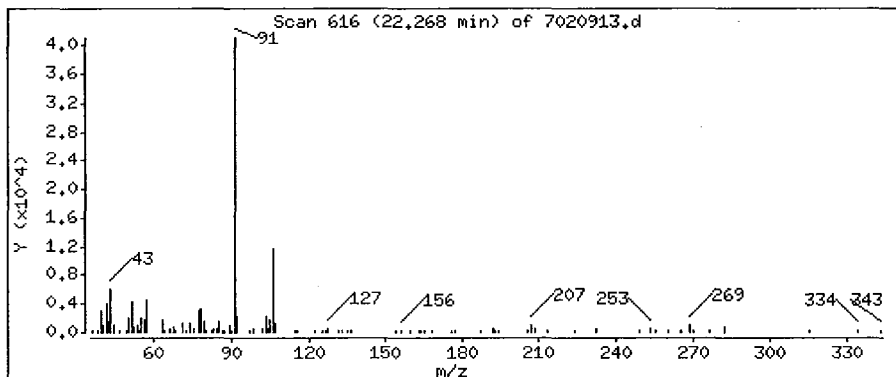
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.4870 PPBV



0435

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

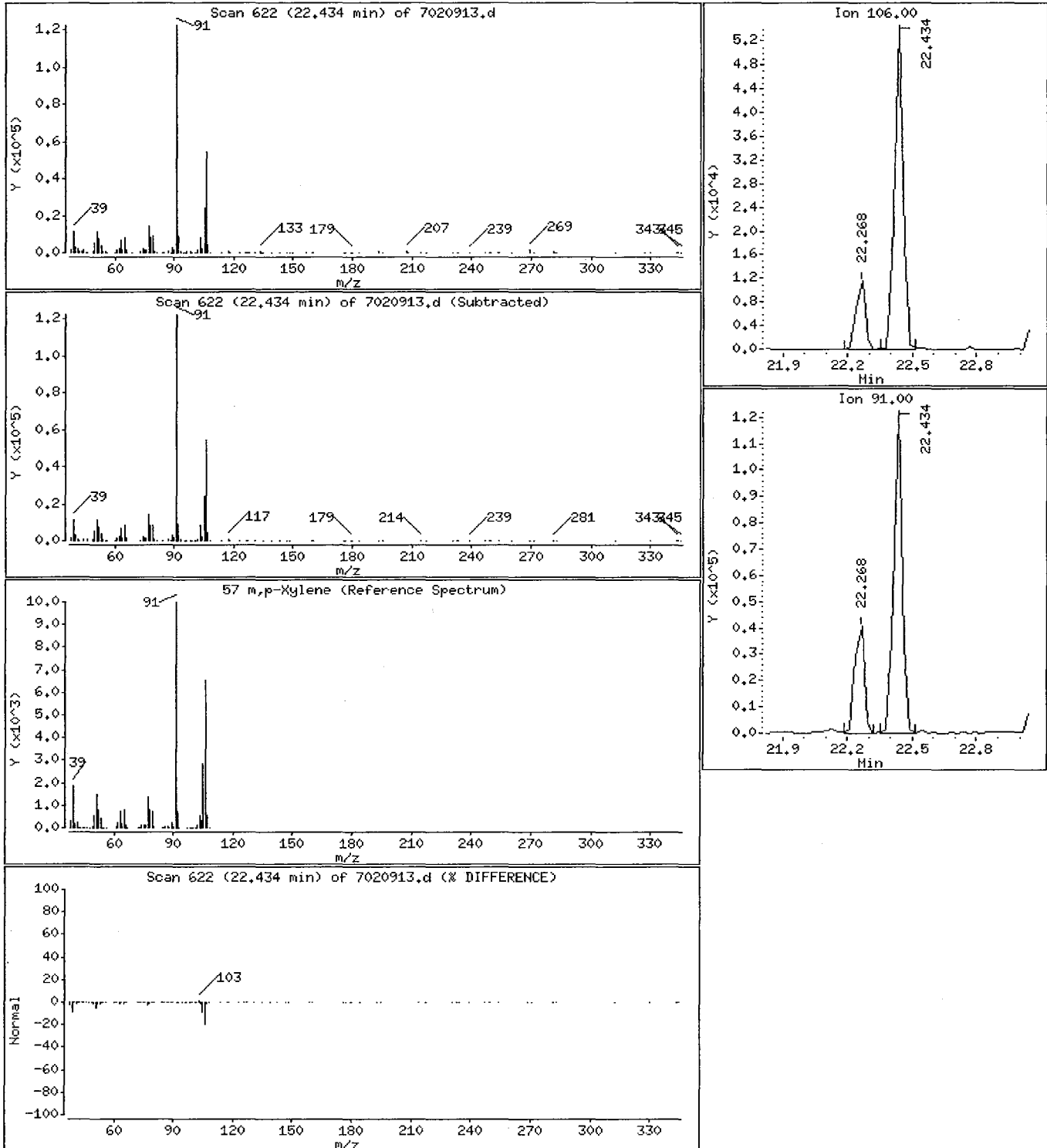
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.706 PPBV



0436

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

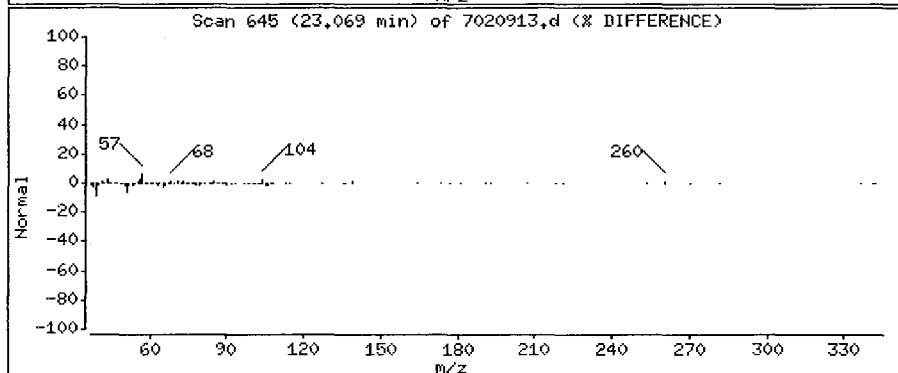
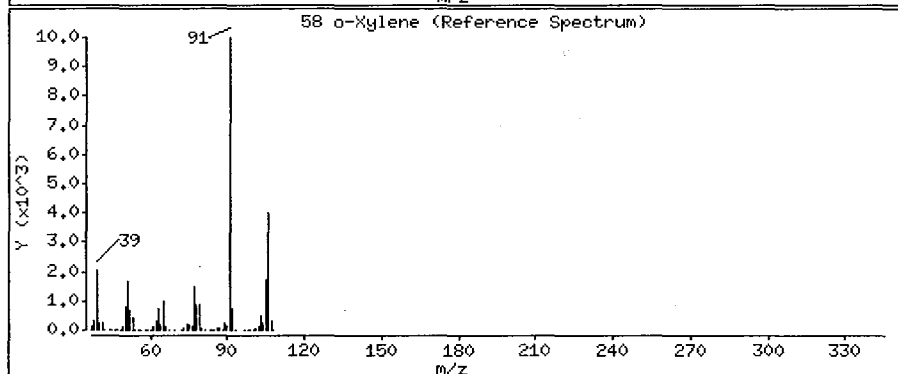
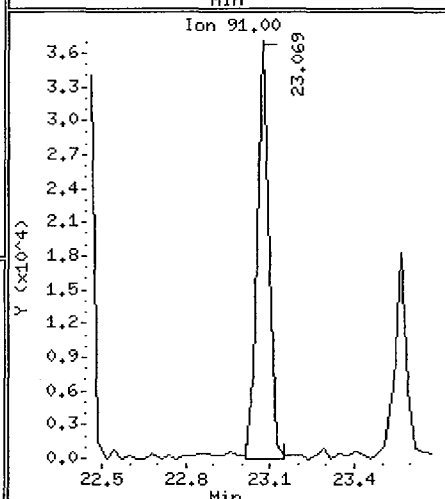
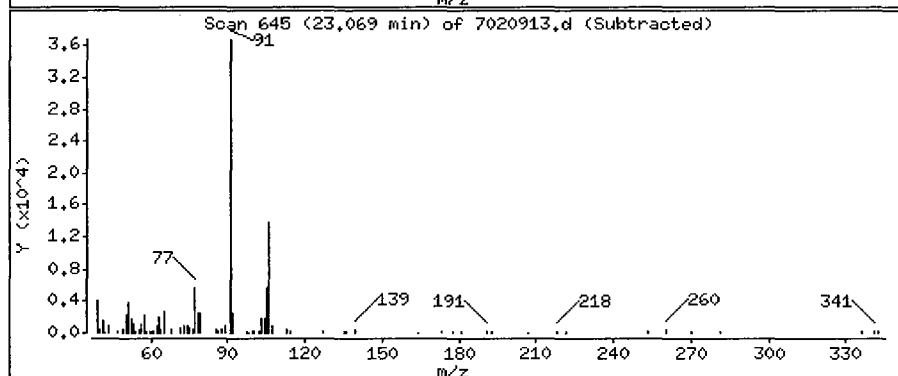
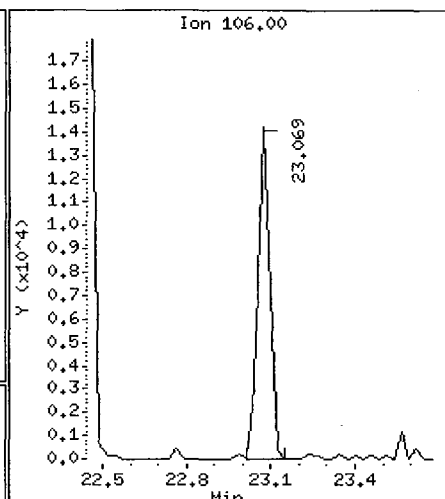
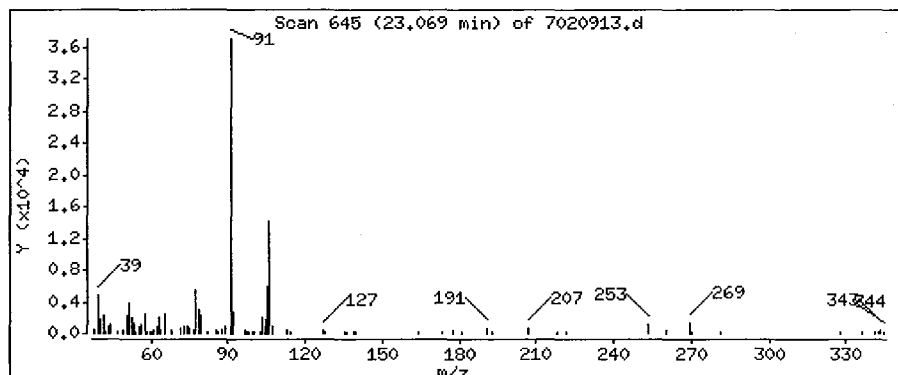
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.5874 PPBV



0437

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

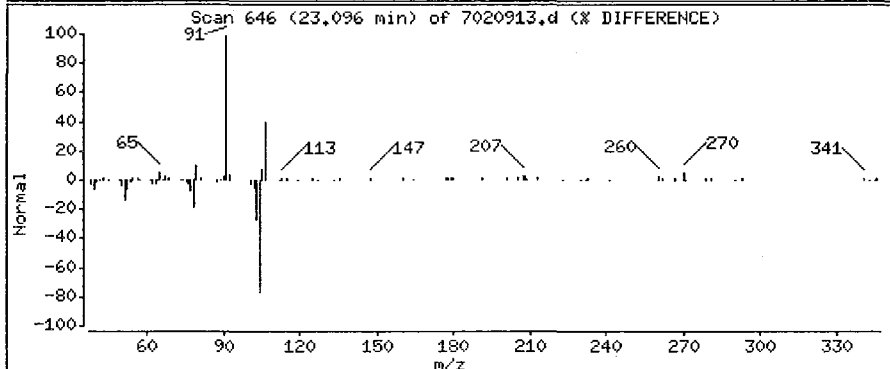
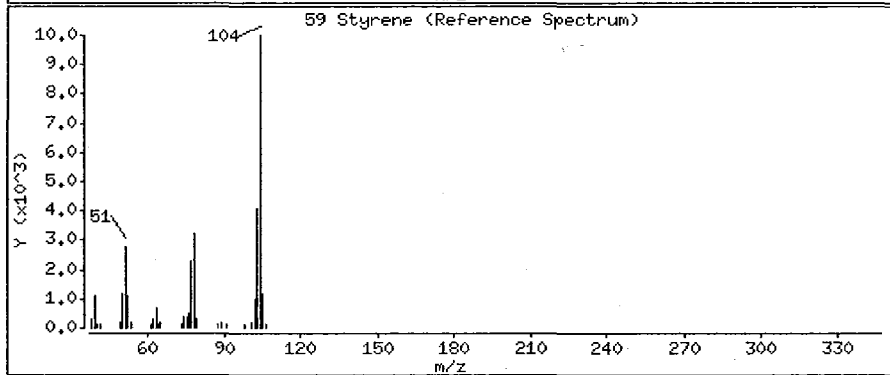
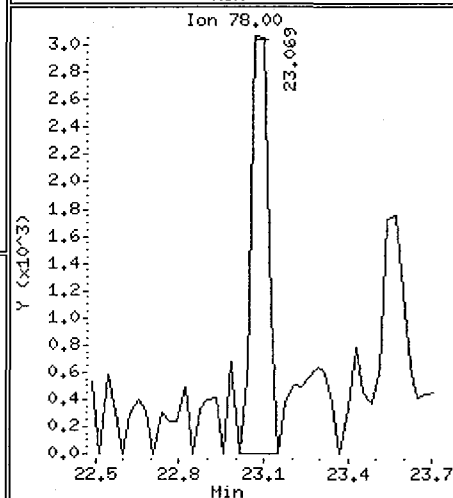
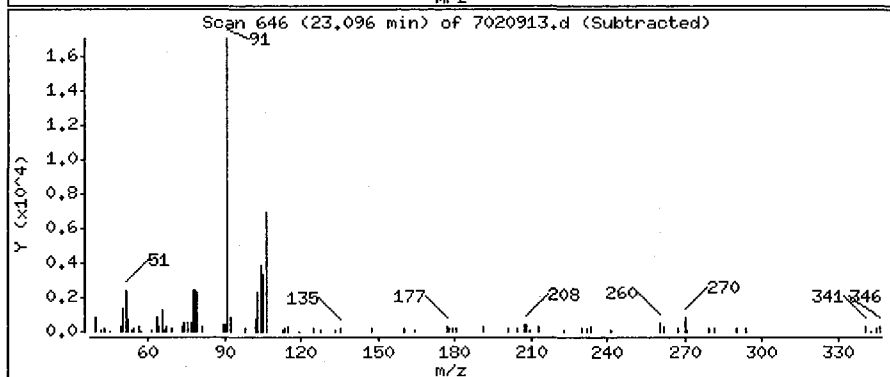
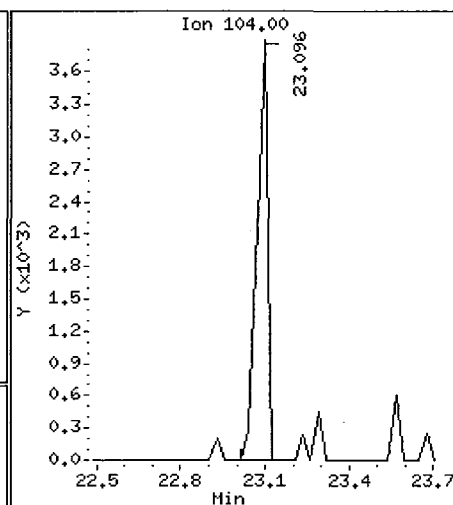
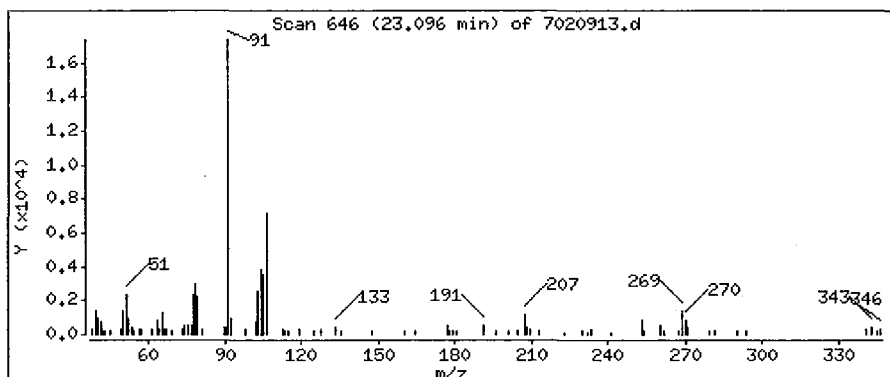
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.09082 PPBV



0438

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

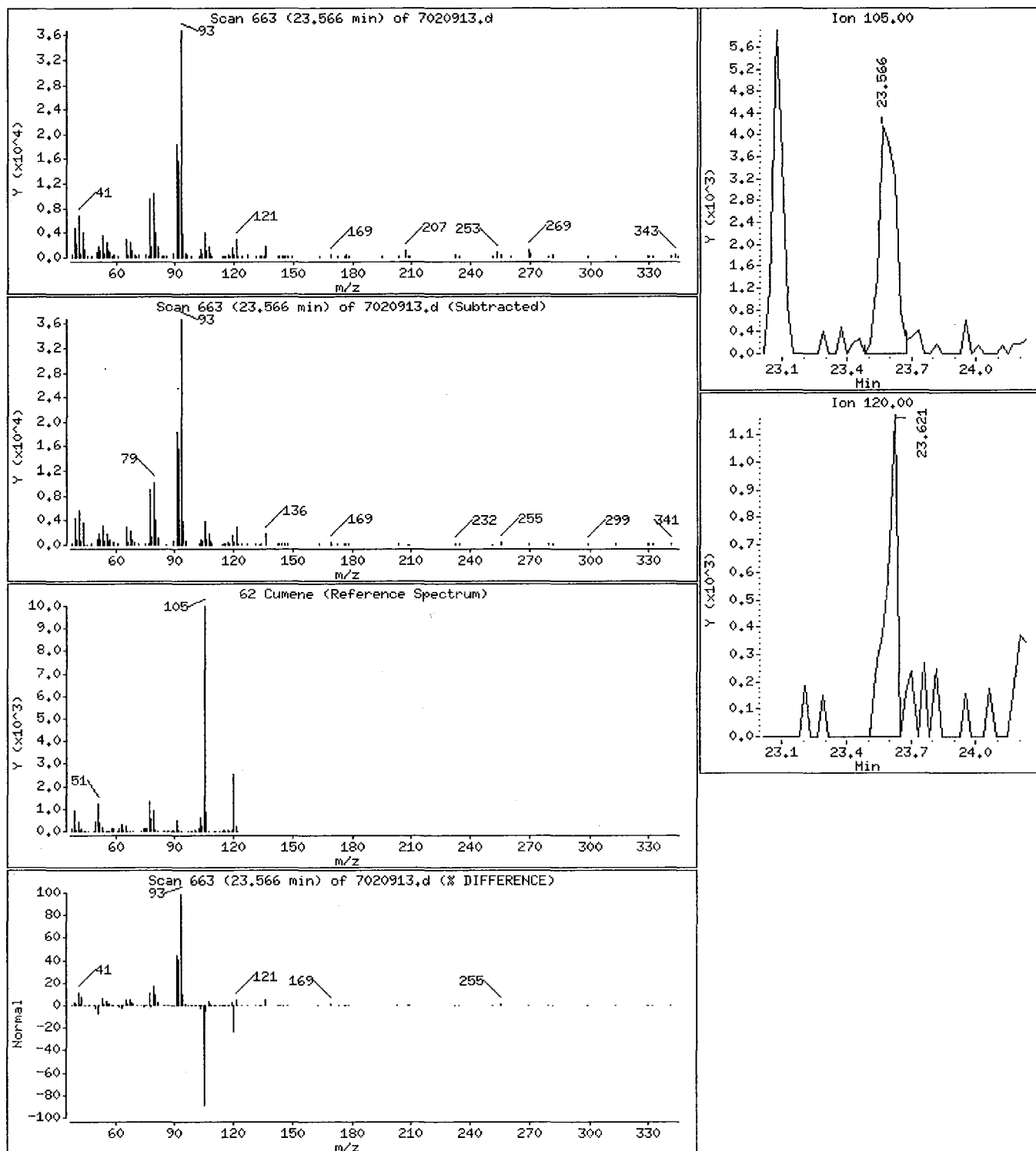
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.1343 PPBV



0439

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

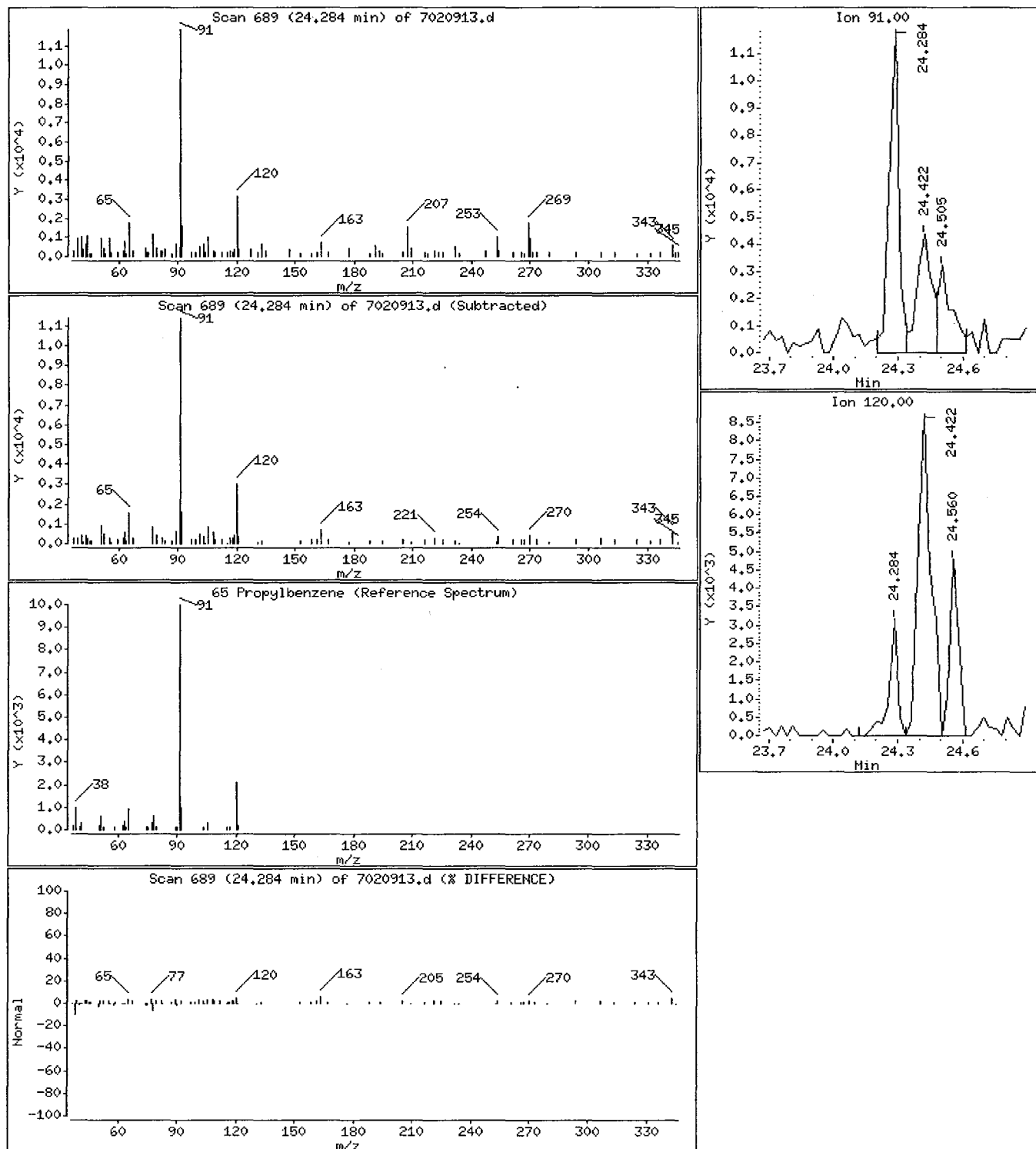
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1587 PPBV



0440

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

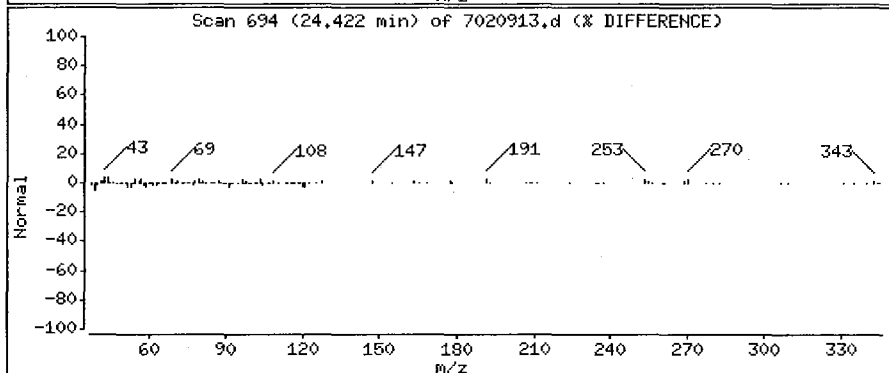
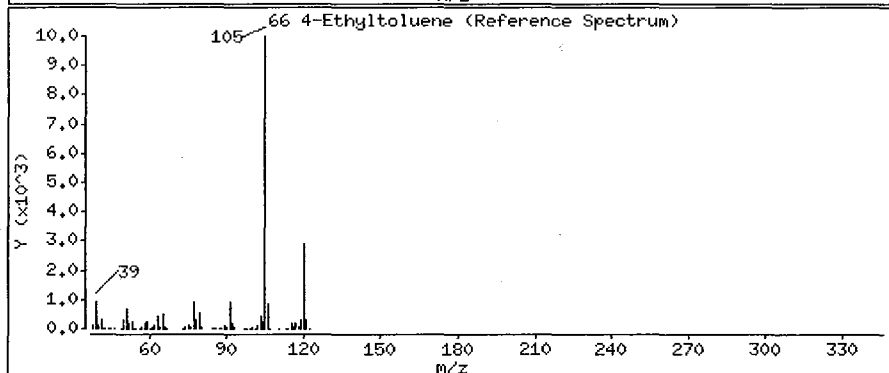
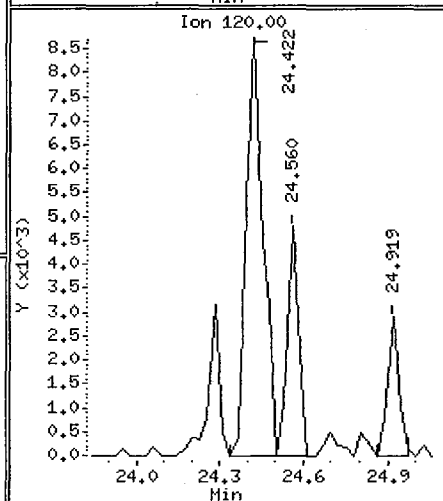
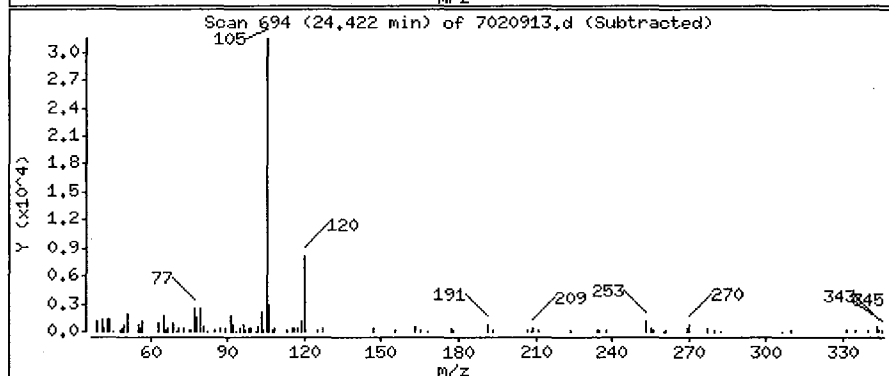
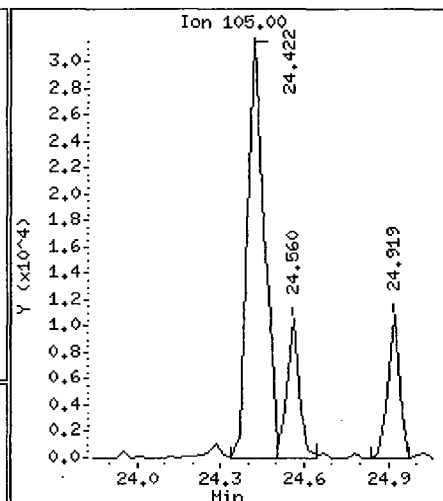
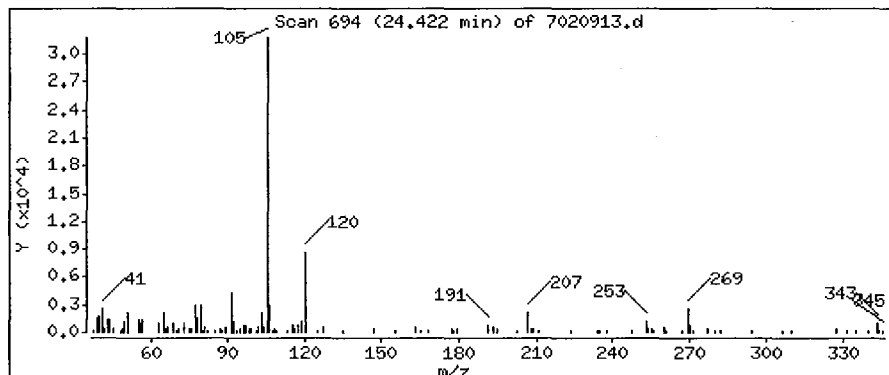
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.7073 PPBV



0441

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

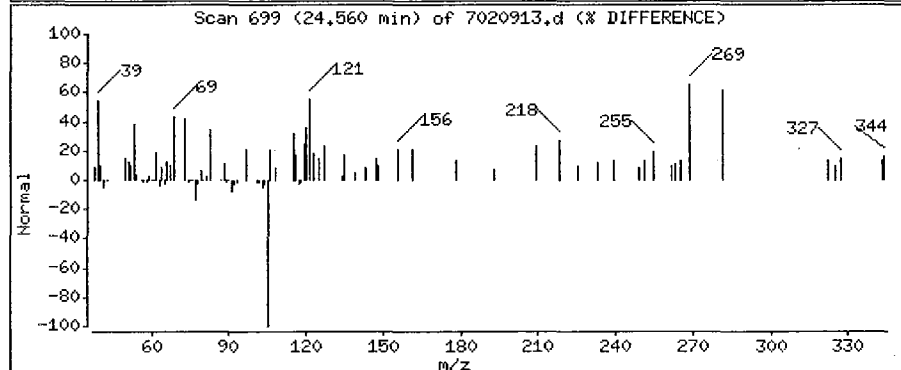
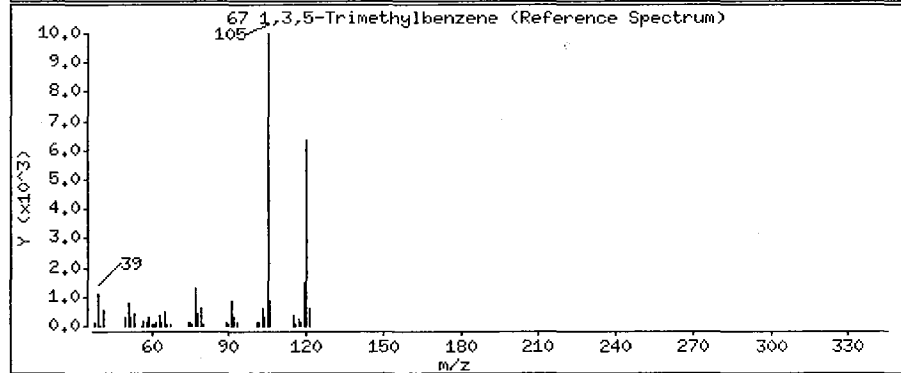
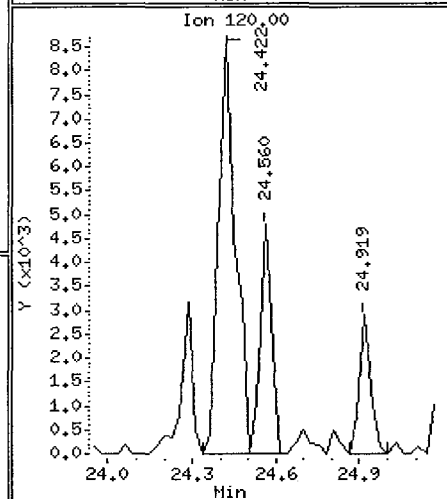
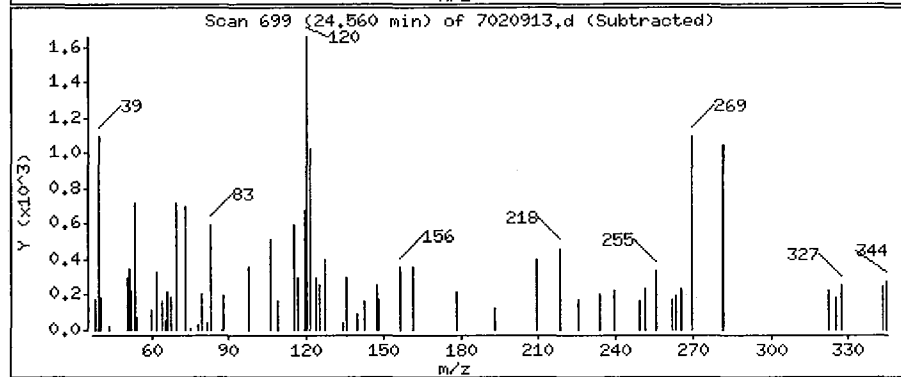
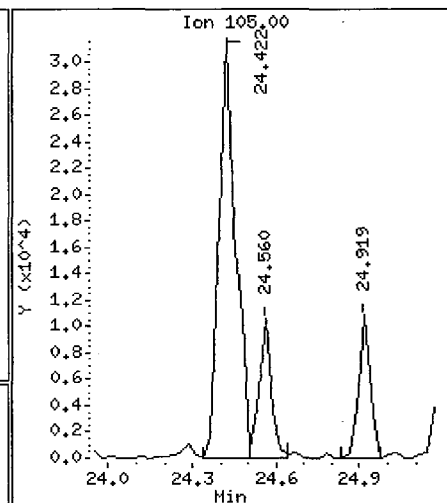
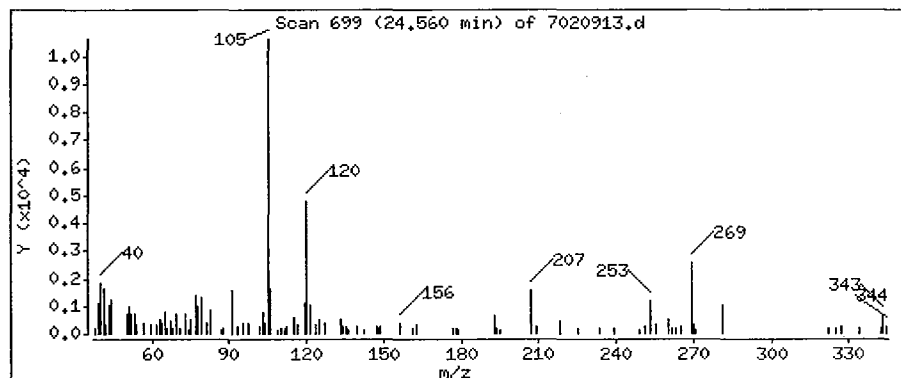
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1945 PPBV



0442

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

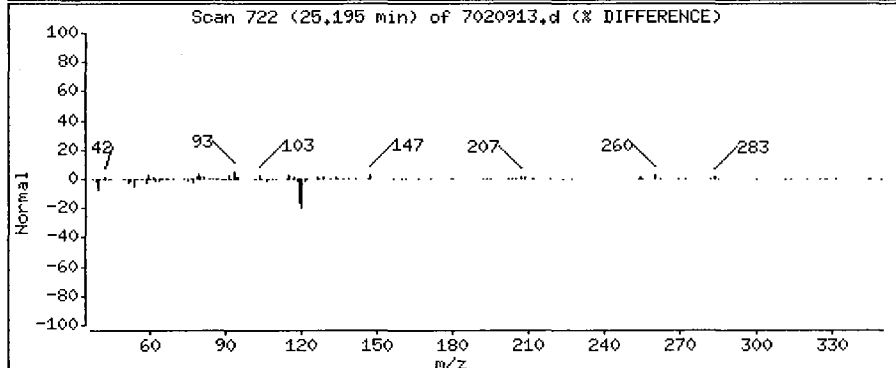
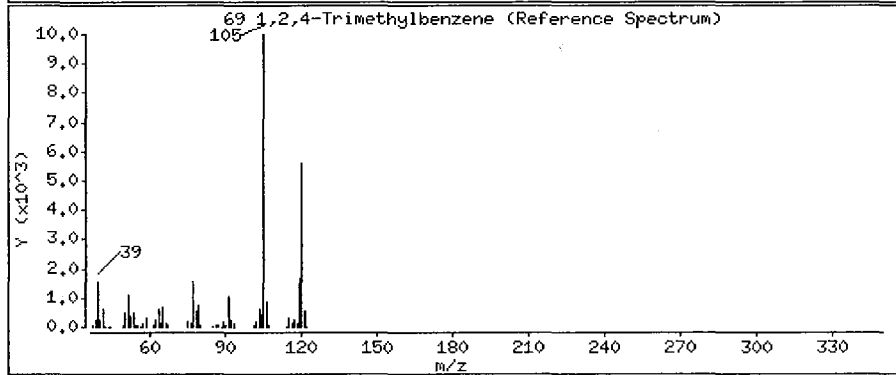
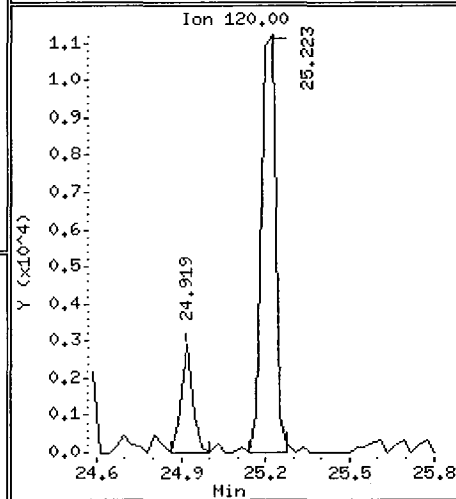
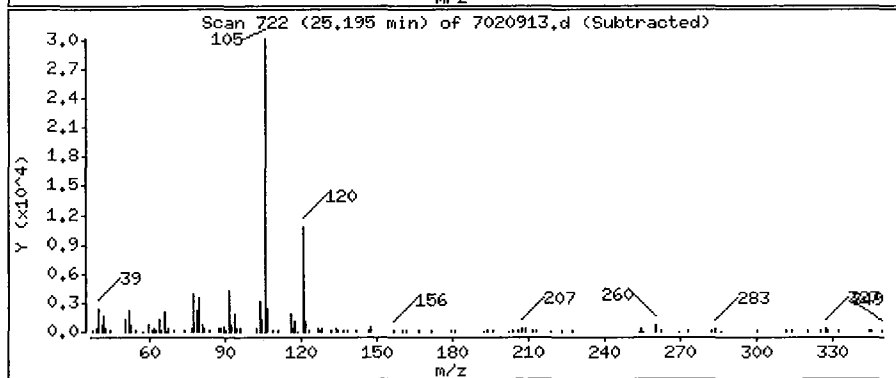
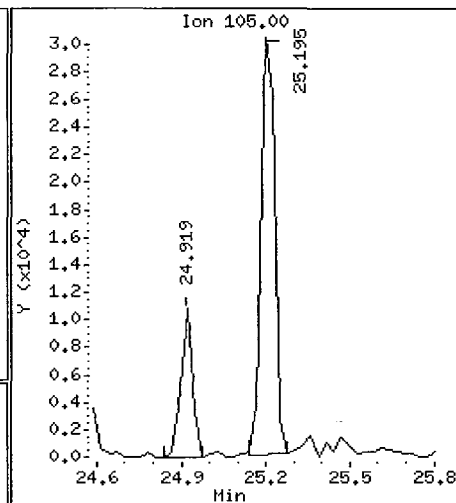
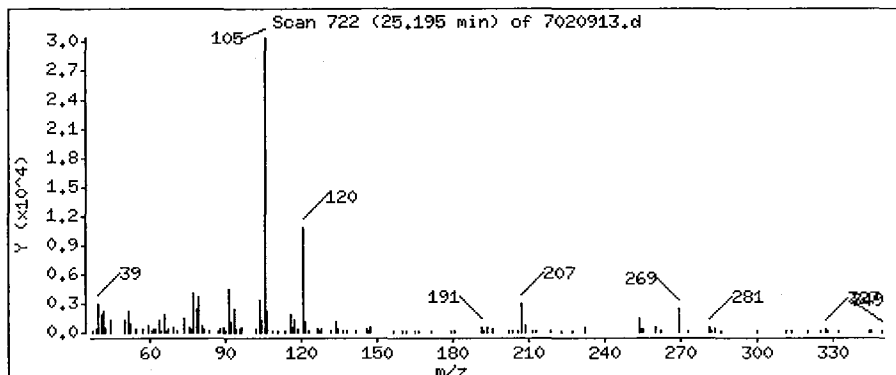
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.6559 PPBV



0443

Date : 09-FEB-2005 15:37

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 10794

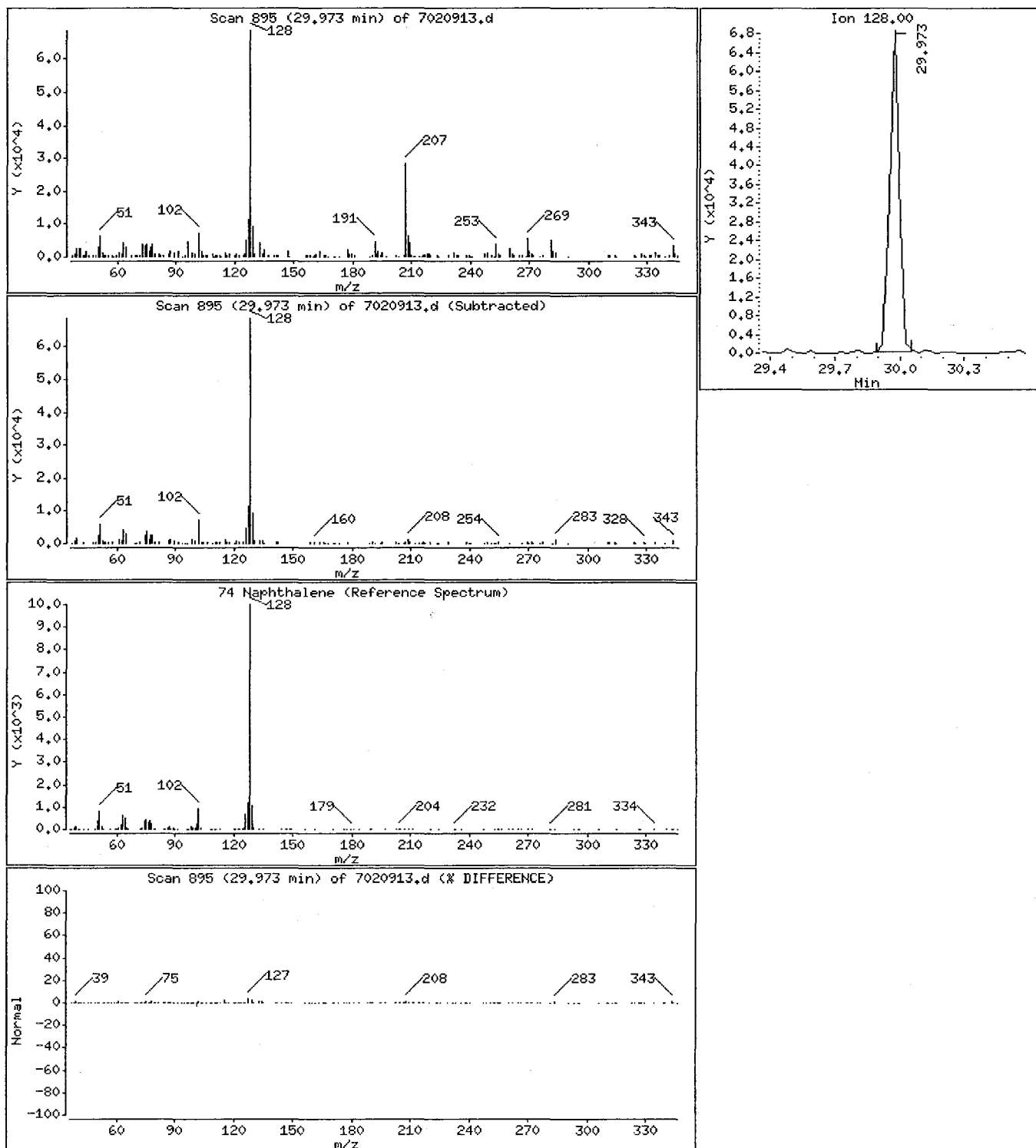
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

74 Naphthalene

Concentration: 0.5868 PPBV



0444

AIR TOXICS LTD.

SAMPLE NAME: #12, Outside, South Center Fence

ID#: 0502032-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020912	Date of Collection: 1/25/05
Dil. Factor:	1.68	Date of Analysis: 2/9/05 02:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.76	0.83	3.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.46	0.35	0.96
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
Bromomethane	0.17	Not Detected	0.65	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
Freon 11	0.17	0.67	0.94	3.8
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Carbon Tetrachloride	0.17	0.10 J	1.0	0.65 J
Benzene	0.17	1.1	0.54	3.5
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
Toluene	0.17	2.0	0.63	7.5
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.47	0.73	2.0
m,p-Xylene	0.17	1.4	0.73	6.2
o-Xylene	0.17	0.46	0.73	2.0
Styrene	0.17	0.080 J	0.72	0.34 J
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.24	0.82	1.2
1,2,4-Trimethylbenzene	0.17	0.72	0.82	3.5
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.37	1.2	1.3
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
1,3-Butadiene	0.84	0.20 J	1.8	0.43 J
Acetone	0.84	2.4	2.0	5.8
Carbon Disulfide	0.84	0.25 J	2.6	0.77 J

AIR TOXICS LTD.

SAMPLE NAME: #12, Outside, South Center Fence

ID#: 0502032-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020912	Date of Collection:	1/25/05
Dil. Factor:	1.68	Date of Analysis:	2/9/05 02:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.84	0.54 J	2.1	1.3 J
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.83 J	2.5	2.4 J
Hexane	0.84	0.82 J	3.0	2.9 J
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Cyclohexane	0.84	0.24 J	2.9	0.83 J
1,4-Dioxane	0.84	Not Detected	3.0	Not Detected
Bromodichloromethane	0.84	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	0.84	0.80 J	3.4	3.3 J
2-Hexanone	0.84	0.092 J	3.4	0.38 J
Dibromochloromethane	0.84	Not Detected	7.2	Not Detected
Bromoform	0.84	Not Detected	8.7	Not Detected
4-Ethyltoluene	0.84	0.74 J	4.1	3.6 J
Ethanol	0.84	3.5	1.6	6.6
Methyl tert-butyl ether	0.84	Not Detected	3.0	Not Detected
Heptane	0.84	0.42 J	3.4	1.7 J
Cumene	0.84	0.11 J	4.1	0.54 J
Propylbenzene	0.84	0.17 J	4.1	0.84 J
Naphthalene	0.84	0.85	4.4	4.4

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020912.d
Lab Smp Id: 0502032-12A
Inj Date : 09-FEB-2005 14:56
Operator : nk Inst ID: msd7.i
Smp Info : 500ml Can# 12711
Misc Info : 6.0"Hg-5psi,Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: ATmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	442980	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	340566			26.96- 126.96	76.88	
16.303	16.331	(1.000)	49	786284			126.50- 226.50	177.50	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	1969936	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	331714			0.00- 67.64	16.84	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1445634	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	873823			9.26- 109.26	60.45	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	932726	10.2232	10.223	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	434093			0.17- 100.17	46.54	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1692992	10.0735	10.074	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	201140			0.00- 62.11	11.88	

0447

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1175121			22.24- 122.24	69.41

\$ 63 Bromofluorobenzene					CAS #: 460-00-4			
23.953	23.953	(1.082)	174	828718	11.0970	11.097	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1227809			97.68- 197.68	148.16
23.953	23.953	(1.082)	176	771275			43.78- 143.78	93.07

1 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8			
5.975	5.947	(0.366)	85	163668	0.45581	0.7658	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	53989			0.00- 81.67	32.99

4 Chloromethane					CAS #: 74-87-3			
7.356	7.356	(0.450)	50	28535	0.27565	0.4631	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	7471			0.00- 84.65	26.18

7 1,3-Butadiene					CAS #: 106-99-0			
8.295	8.295	(0.508)	54	11034	0.11692	0.1964	80.00- 120.00	100.00(a)
8.295	8.295	(0.508)	39	14178			48.03- 148.03	128.49

10 Trichlorofluoromethane/Fr11					CAS #: 75-69-4			
11.056	11.056	(0.677)	101	124587	0.39903	0.6704	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	82525			13.78- 113.78	66.24

12 Ethanol					CAS #: 64-17-5			
12.050	12.050	(0.738)	45	91735	2.09327	3.517	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	21392			0.00- 76.71	23.32
12.050	12.050	(0.738)	46	34649			0.00- 90.17	37.77

16 Acetone					CAS #: 67-64-1			
12.824	12.824	(0.785)	43	339260	1.45342	2.442	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	90028			0.00- 78.78	26.54

18 2-Propanol					CAS #: 67-63-0			
13.238	13.238	(0.811)	45	70762	0.32073	0.5388	80.00- 120.00	100.00(a)
13.238	13.238	(0.811)	43	21632			0.00- 69.75	30.57
13.238	13.238	(0.811)	59	2490			0.00- 53.72	3.52

17 Carbon Disulfide					CAS #: 75-15-0			
12.906	12.906	(0.790)	76	42795	0.14761	0.2480	80.00- 120.00	100.00(a)

20 Methylene Chloride					CAS #: 75-09-2			
13.735	13.735	(0.841)	84	20523	0.22217	0.3732	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	27714			111.57- 211.57	135.04
13.735	13.735	(0.841)	51	9980			0.00- 93.42	48.63

0448

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	85605	0.48907	0.8216	80.00- 120.00	100.00(a)	
14.563	14.563	(0.892)	43	62222			15.23- 115.23	72.69	
14.563	14.563	(0.892)	86	9541			0.00- 65.23	11.15	

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	23875	0.49358	0.8292	80.00- 120.00	100.00(a)	
15.972	15.972	(0.978)	43	139424			1046.10-1146.10	583.97	
15.972	15.972	(0.978)	57	12101			0.00- 89.21	50.68	

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	13888	0.14350	0.2411	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	46309			93.37- 193.37	333.45	
16.662	16.662	(1.020)	41	32280			30.80- 130.80	232.43	

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	9752	0.06131	0.1030	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	10779			62.01- 162.01	110.53	

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	189047	0.66125	1.111	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	41534			0.00- 72.07	21.97	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	41845	0.25068	0.4211	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	21033			1.42- 101.42	50.26	
17.435	17.435	(0.980)	100	5405			0.00- 66.93	12.92	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	87816	0.47554	0.7989	80.00- 120.00	100.00(a)	
19.727	19.727	(1.109)	58	30975			0.00- 87.49	35.27	
19.727	19.727	(1.109)	85	13955			0.00- 66.91	15.89	

46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	390382	1.19188	2.002	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	246833			11.18- 111.18	63.23	

50 2-Hexanone						CAS #: 591-78-6			
20.942	20.942	(0.946)	58	5174	0.05478	0.09204	80.00- 120.00	100.00(a)	
20.942	20.942	(0.946)	43	9516			144.58- 244.58	183.92	
20.942	20.942	(0.946)	100	2306			0.00- 68.76	44.57	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	32993	0.27797	0.4670	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	107806			294.68- 394.68	326.75	

0449

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	123009	0.84736	1.424	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	271360			168.06- 268.06	220.60	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	32692	0.27653	0.4646	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	80195			186.48- 286.48	245.30	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	8681	0.04744	0.07969	80.00- 120.00	100.00(a)	
23.096	23.096	(1.044)	78	12551			6.37- 106.37	144.58	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	18624	0.06489	0.1090	80.00- 120.00	100.00(a)	
23.621	23.621	(1.067)	120	3070			0.00- 70.65	16.48	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	40160	0.10169	0.1708	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	7427			0.00- 69.13	18.49	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	138747	0.44048	0.7400	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	38001			0.00- 73.94	27.39	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	39919	0.14284	0.2400	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	15144			0.00- 88.64	37.94	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	114780	0.42933	0.7213	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	44662			0.00- 87.09	38.91	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	300128	0.50597	0.8500	80.00- 120.00	100.00	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0450

SCOEPAA00032122

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020912.d
Lab Smp Id: 0502032-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: nk
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 6.0"Hg-5psi,Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	442980	-6.66
38 1,4-Difluorobenze	2234295	1340577	3128013	1969936	-11.83
54 Chlorobenzene-d5	1557243	934346	2180140	1445634	-7.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0451

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-09feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: 0502032-12A	
Level: LOW	Operator: nk
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File:	Quant Type: ISTD
Sublist File: ATmdl.sub	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 6.0"Hg-5psi,Clayton	

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.223	102.23	70-130
\$ 45 Toluene-d8	10.000	10.074	100.74	70-130
\$ 63 Bromofluorobenzene	10.000	11.097	110.97	70-130

0452

Date : 09-FEB-2005 14:56

Client ID:

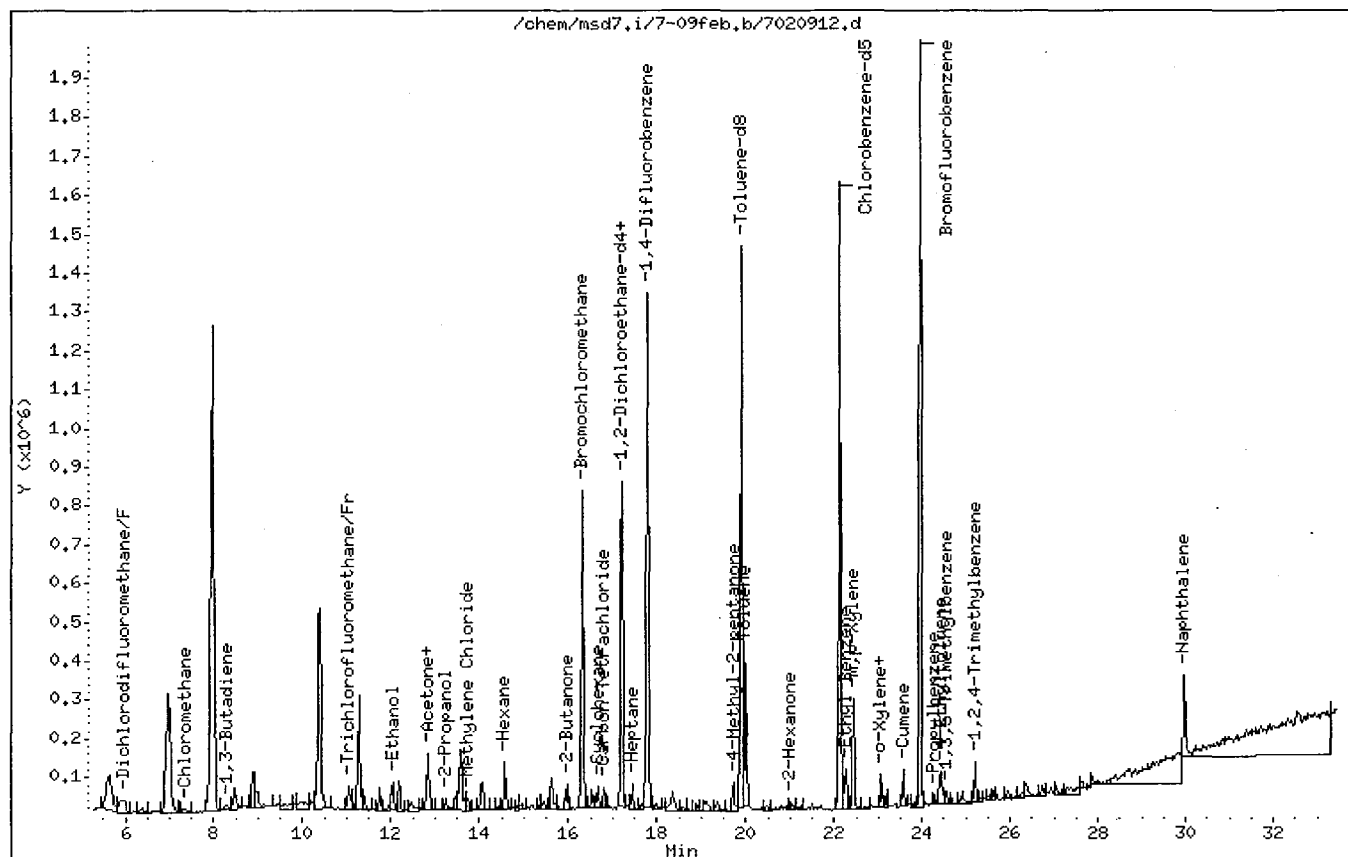
Instrument: msd7.i

Sample Info: 500ml Can# 12711

Operator: nk

Column phase: RTx-624

Column diameter: 0.32



0453

SCOEP00032125

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

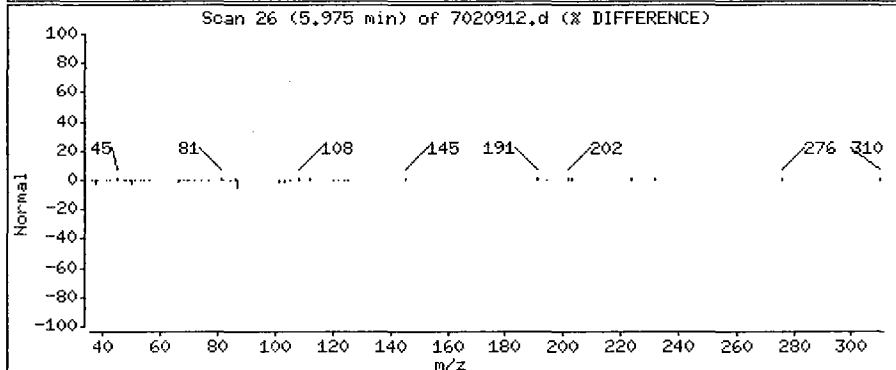
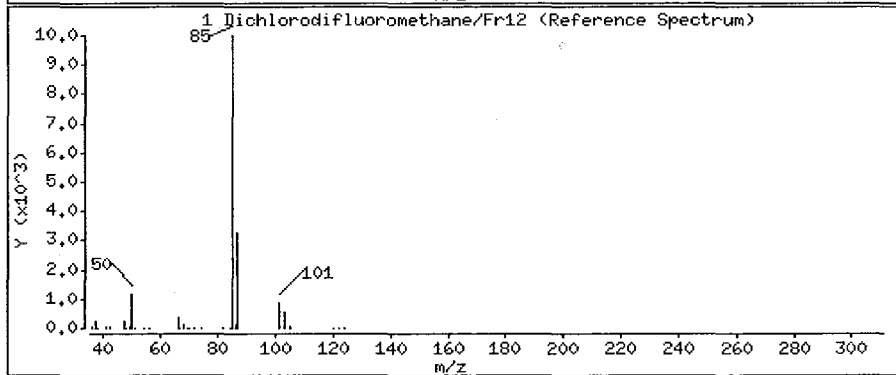
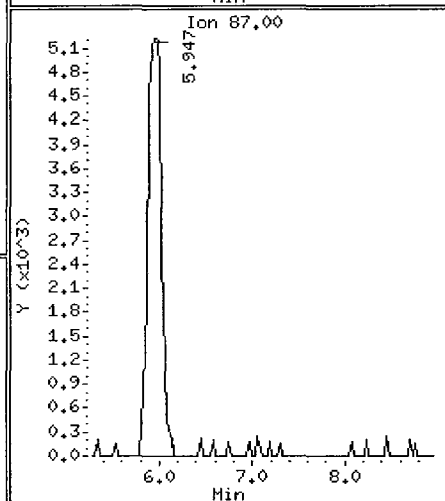
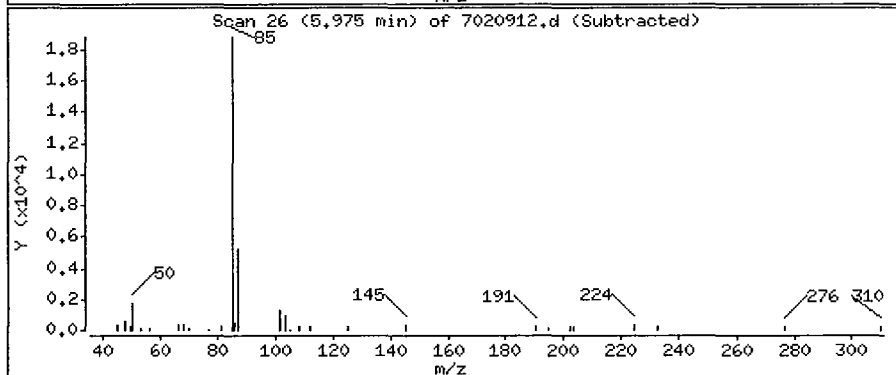
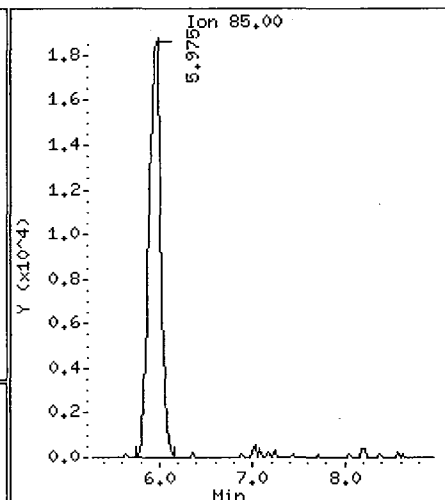
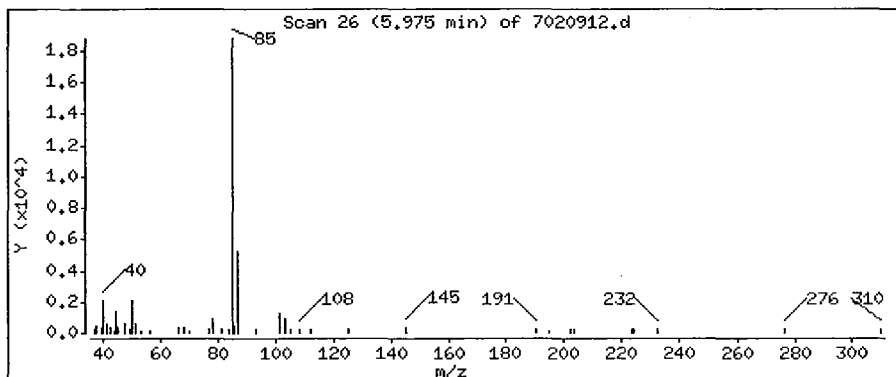
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.7658 PPBV



0454

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

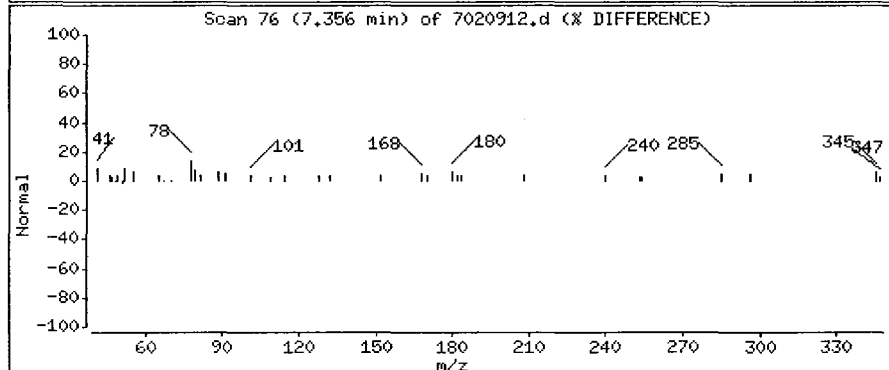
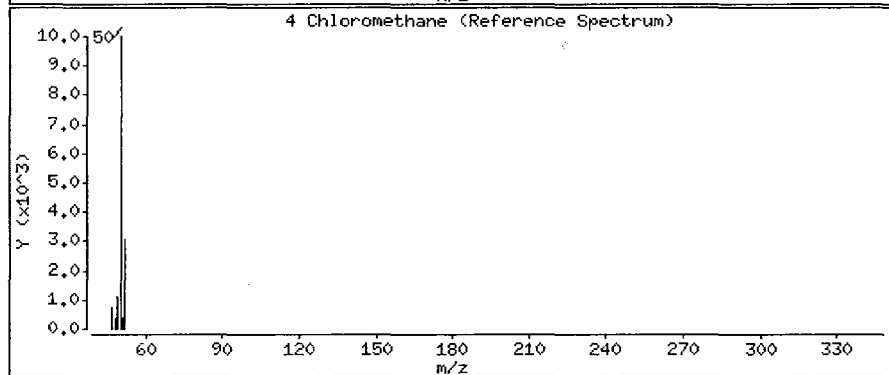
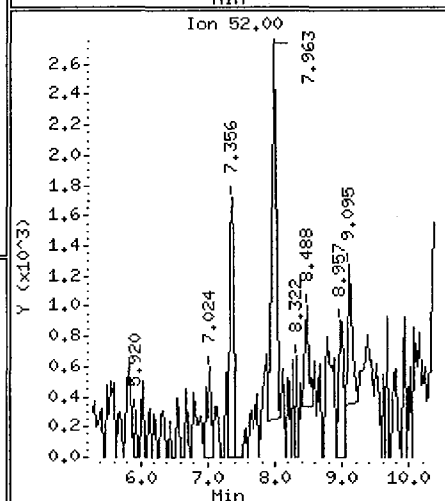
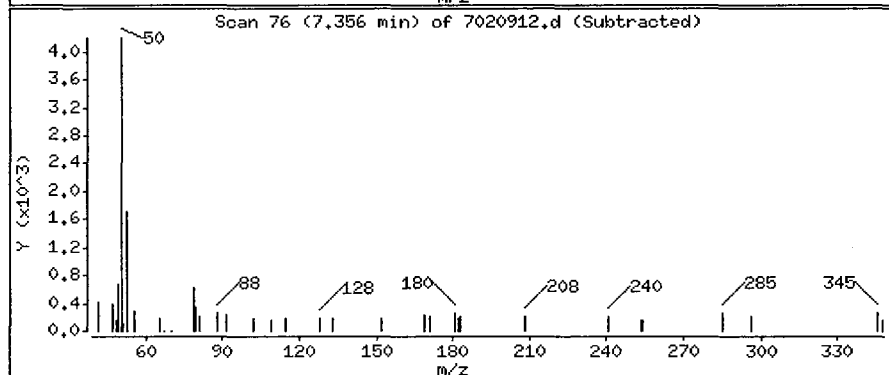
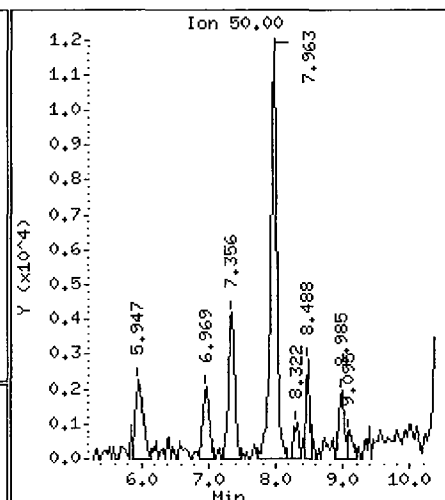
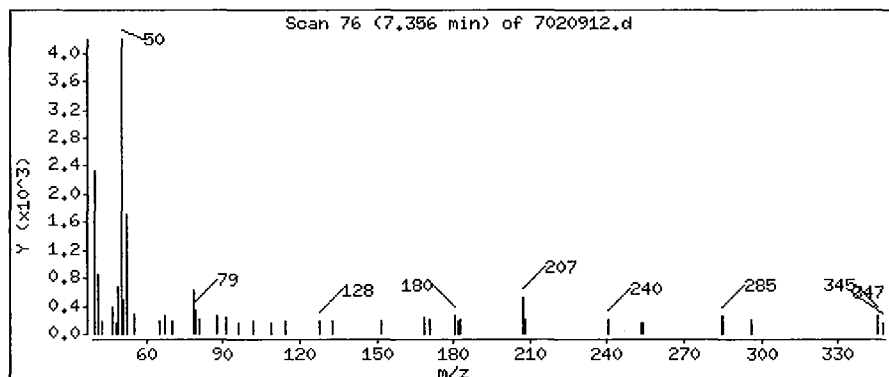
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4631 PPBV



0455

Date: 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

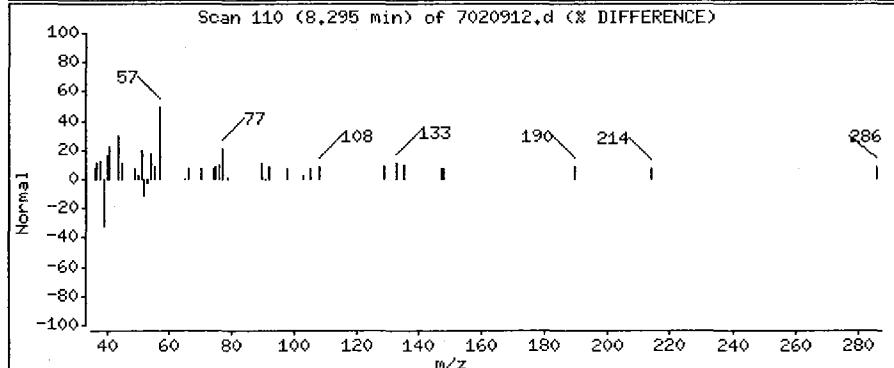
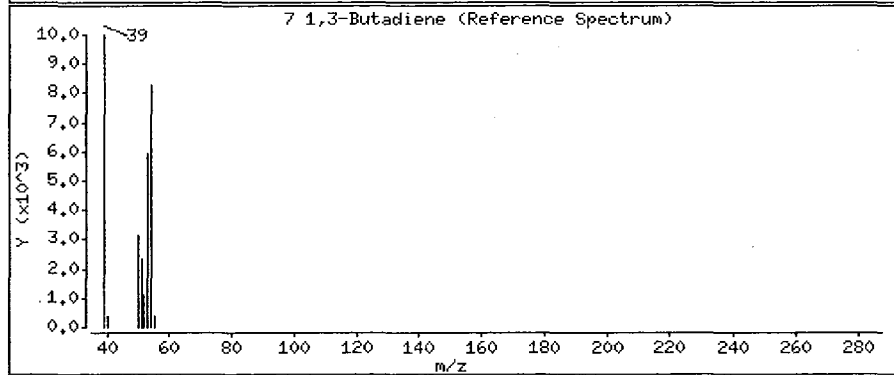
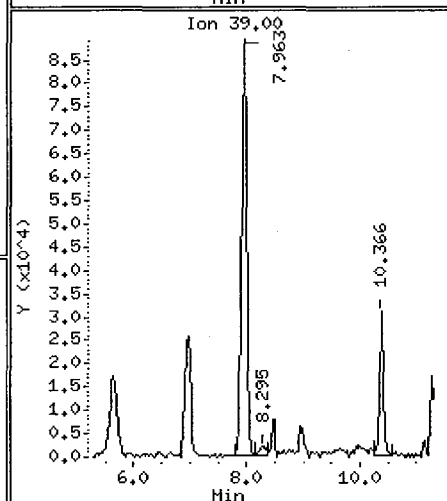
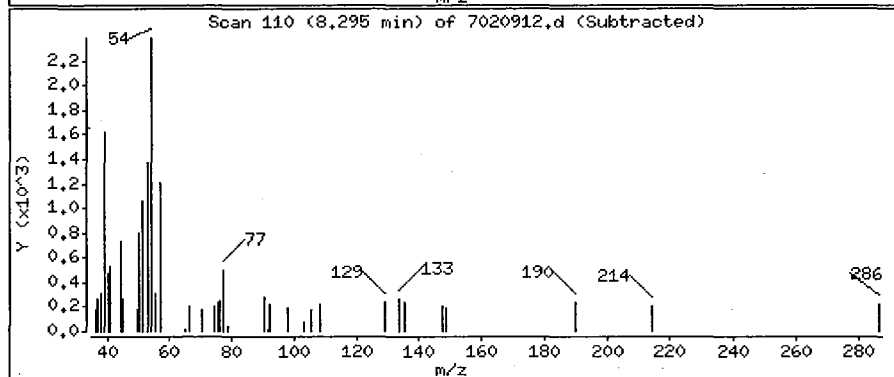
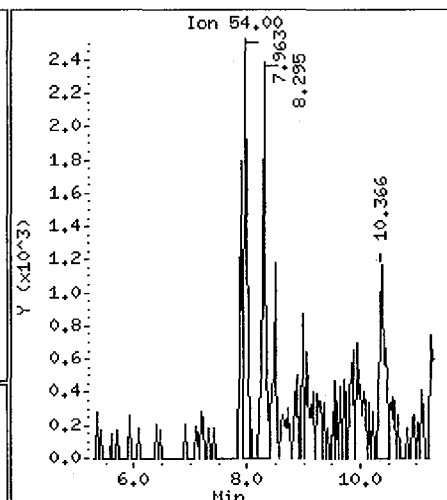
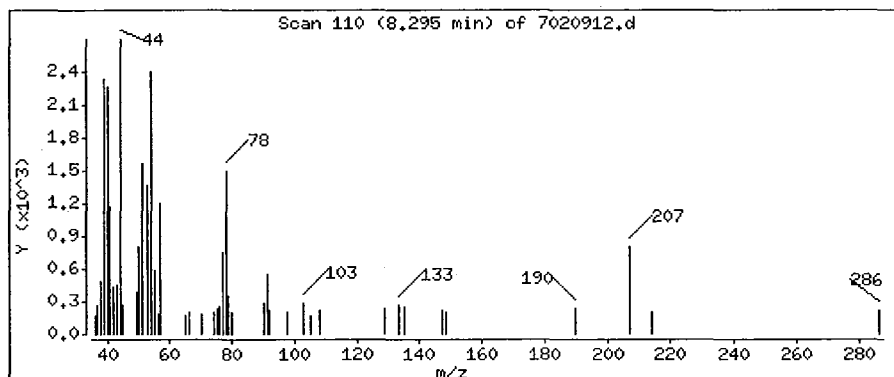
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1964 PPBV



0456

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

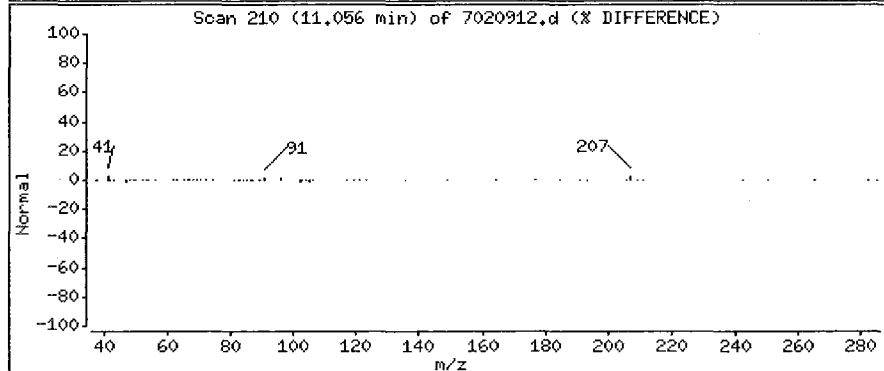
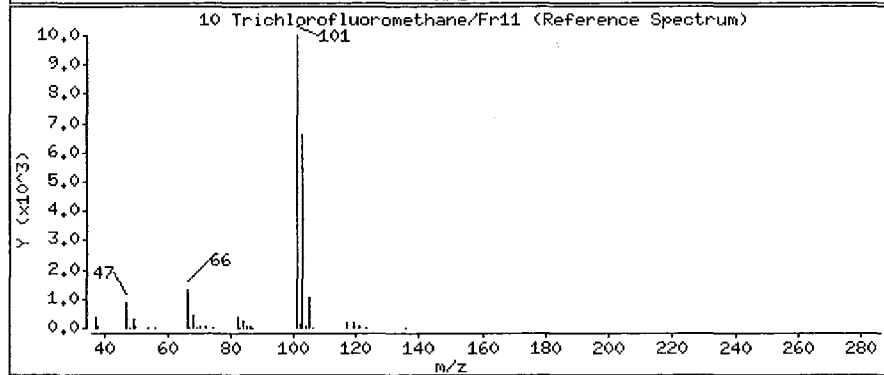
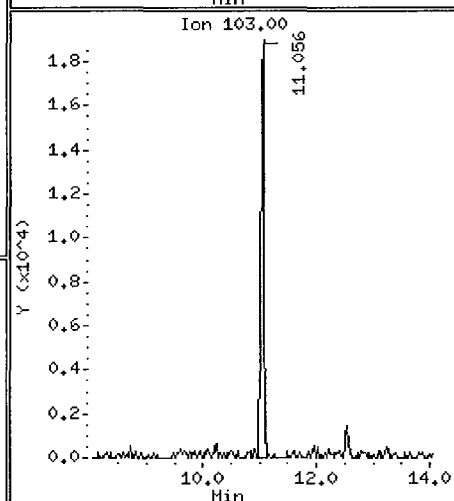
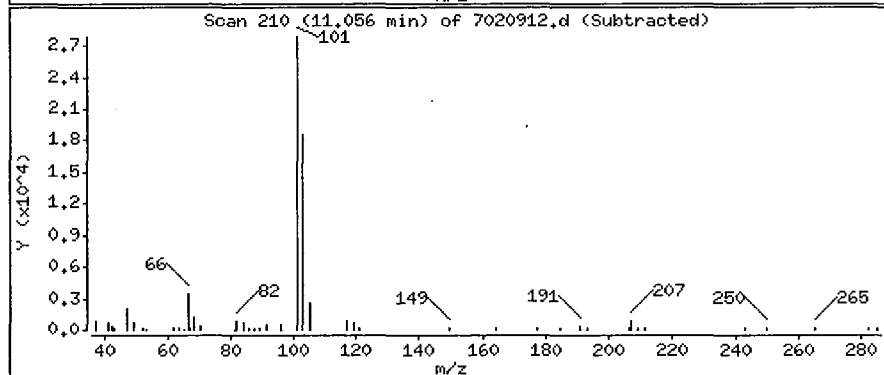
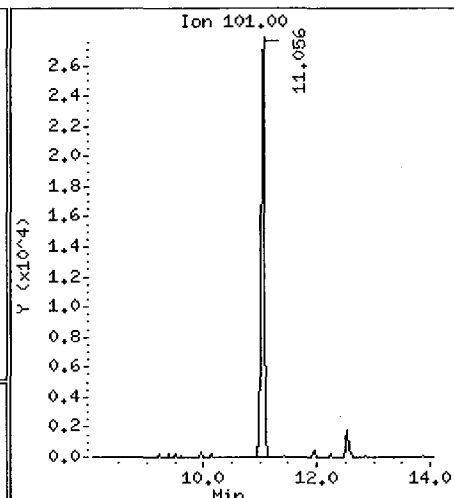
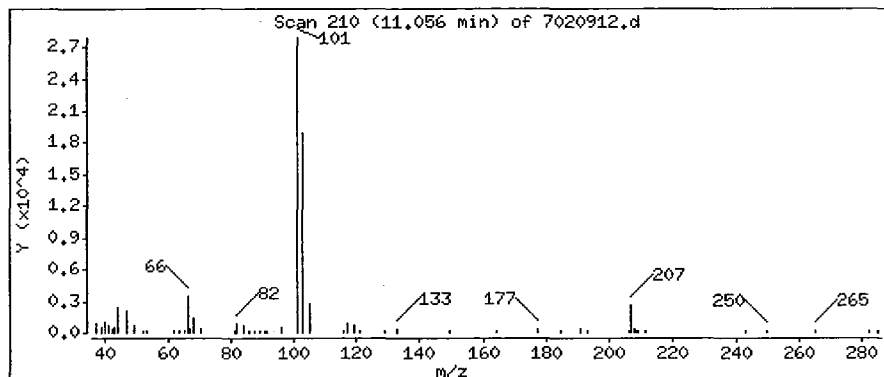
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.6704 PPBV



0457

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

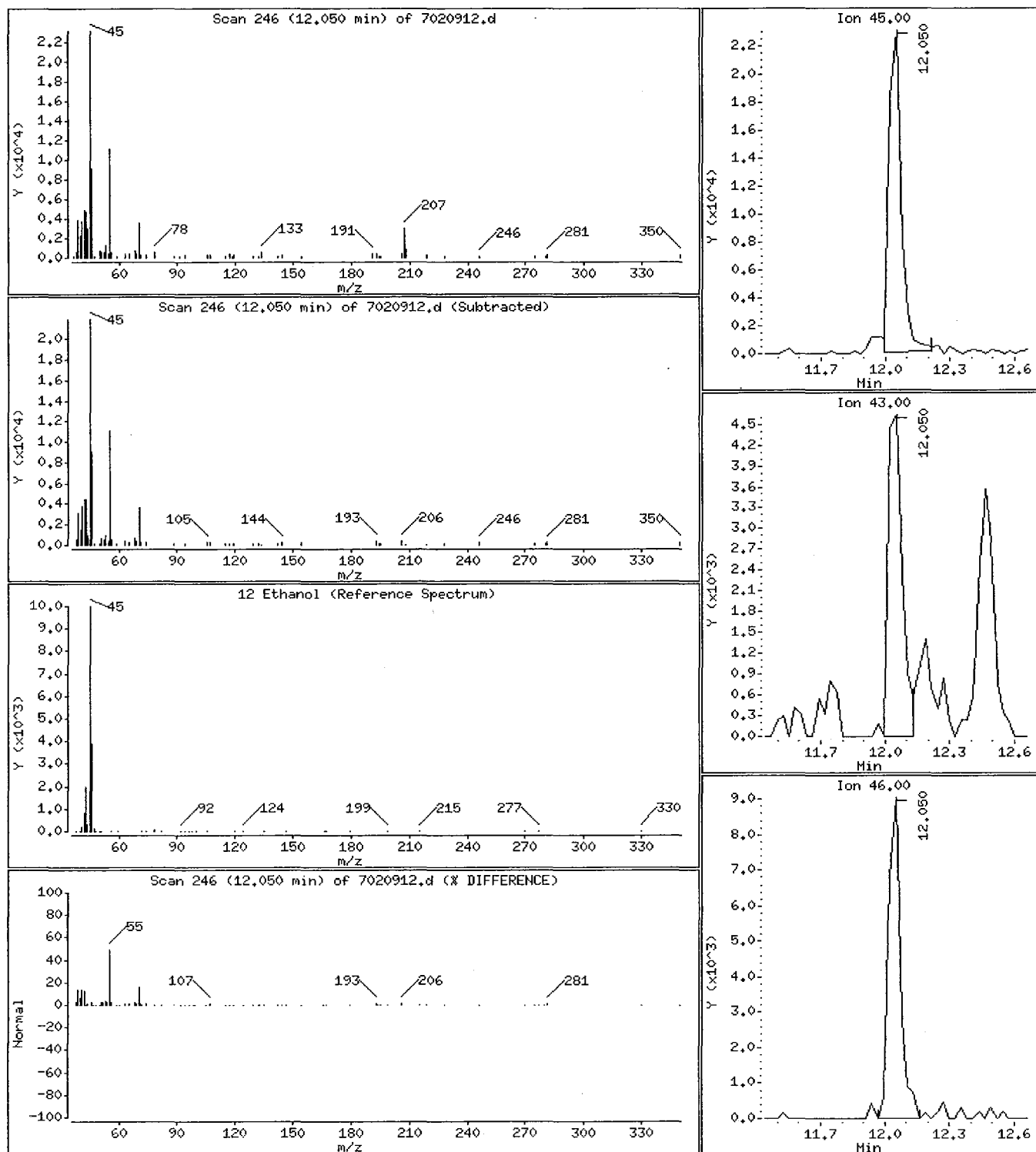
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 3,517 PPBV



0458

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

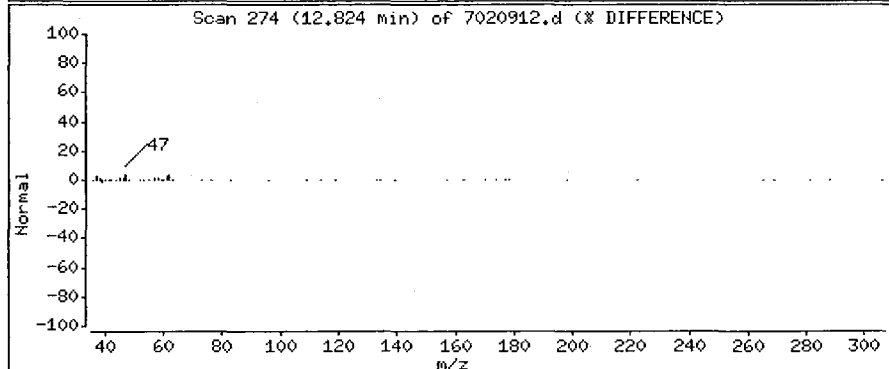
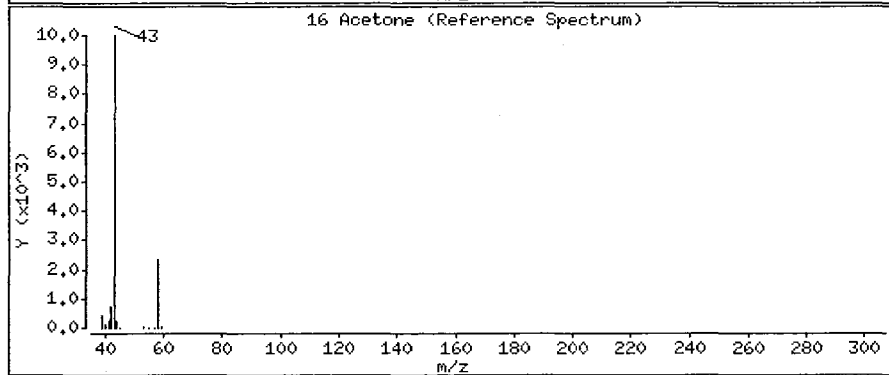
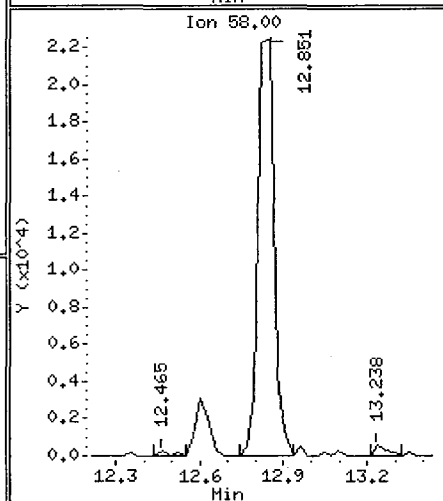
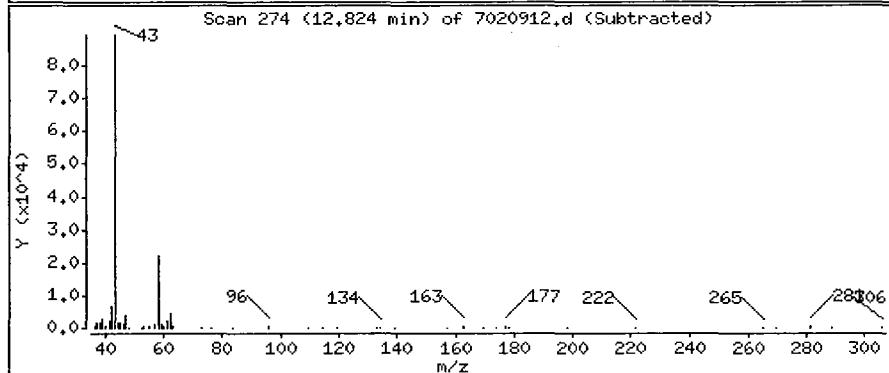
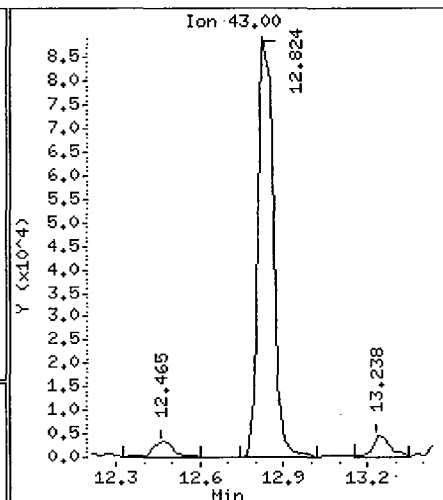
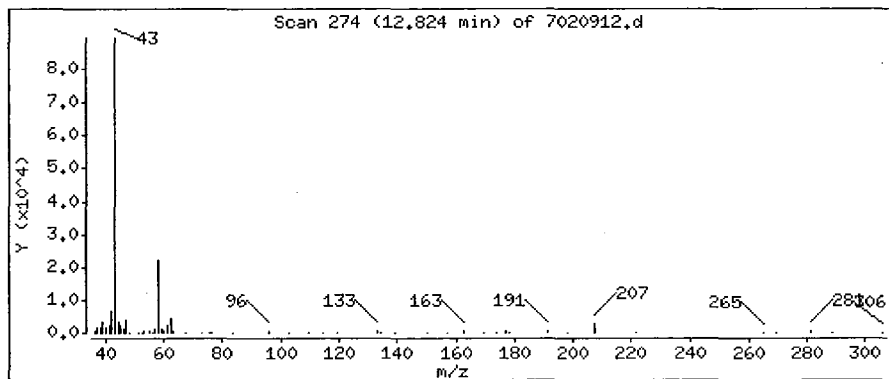
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

16 Acetone

Concentration: 2.442 PPBV



0459

Data File: /chem/msd7.i/7-09feb.b/7020912.d

Page 8

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

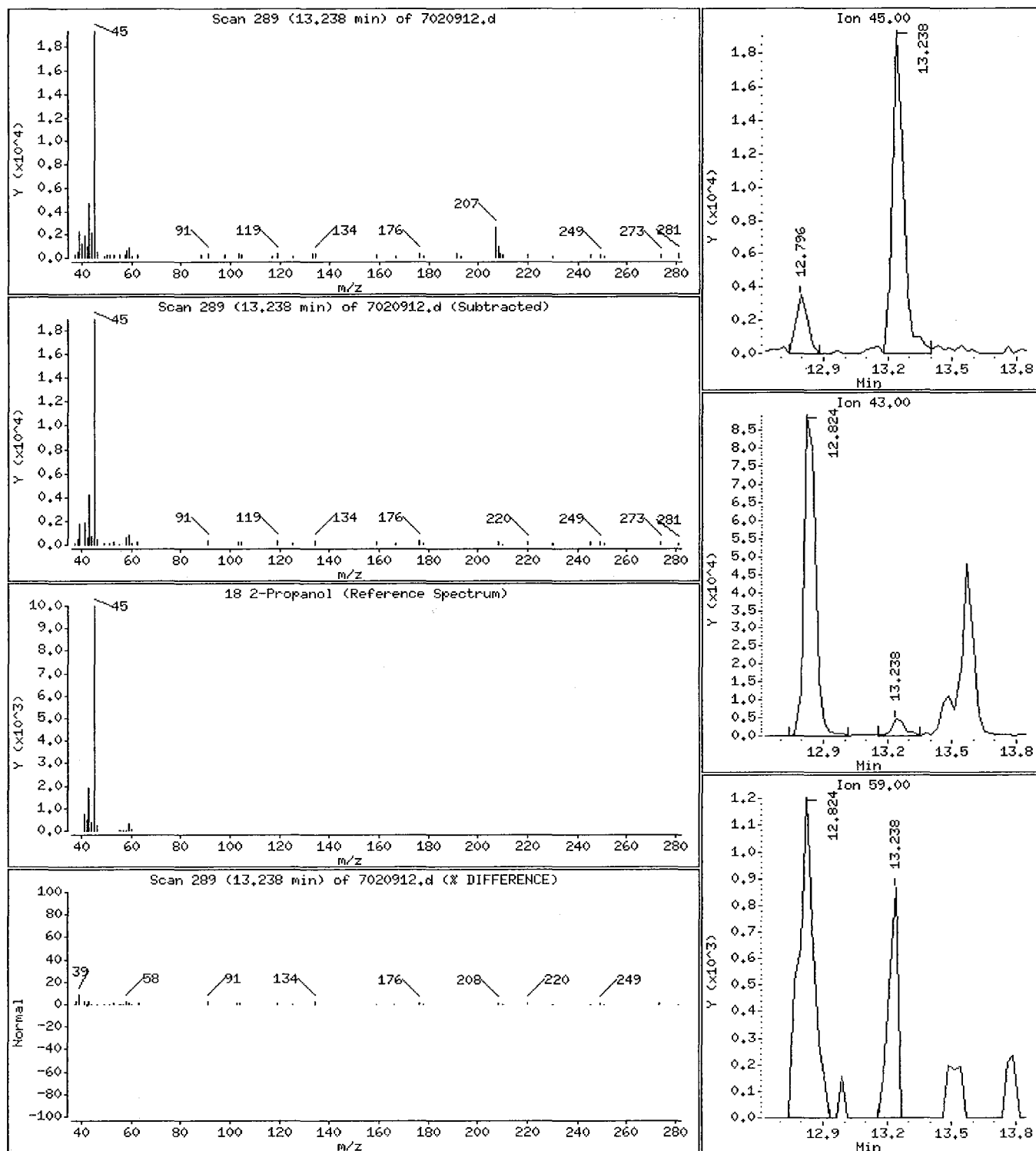
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 0.5388 PPBV



0460

SCOEPAA00032132

Data File: /chem/msd7.i/7-09feb.b/7020912.d

Page 9

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

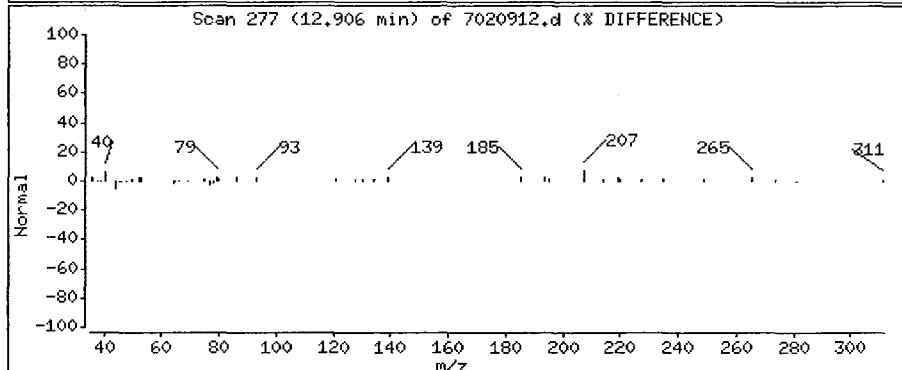
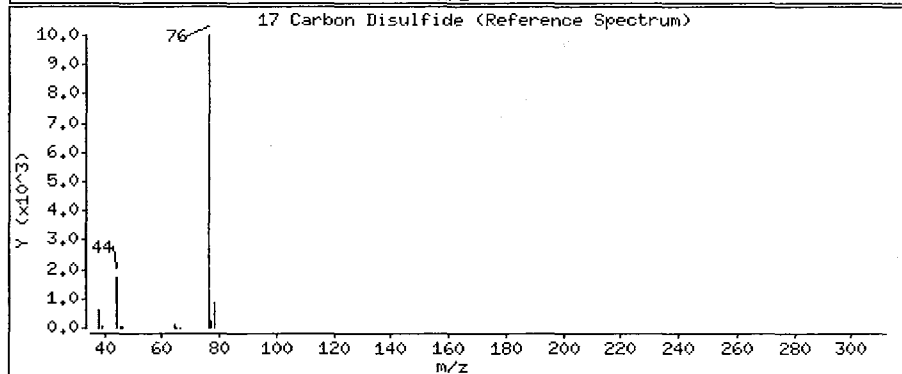
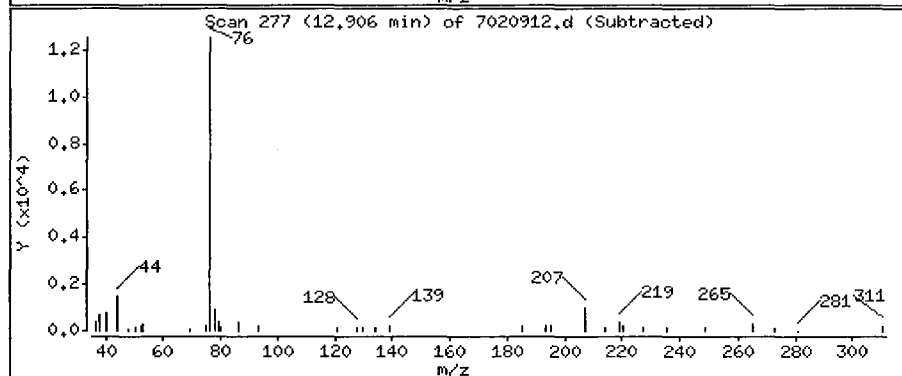
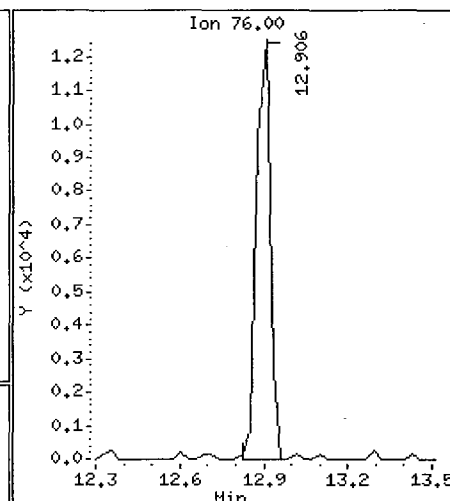
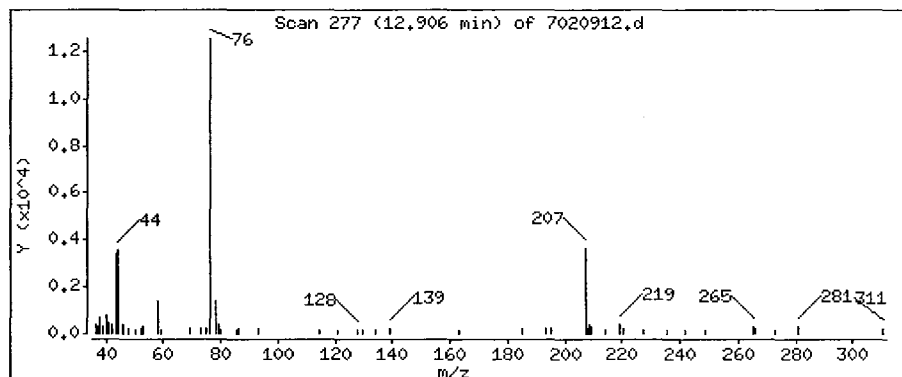
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.2480 PPBV



0461

SCOEPAA00032133

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

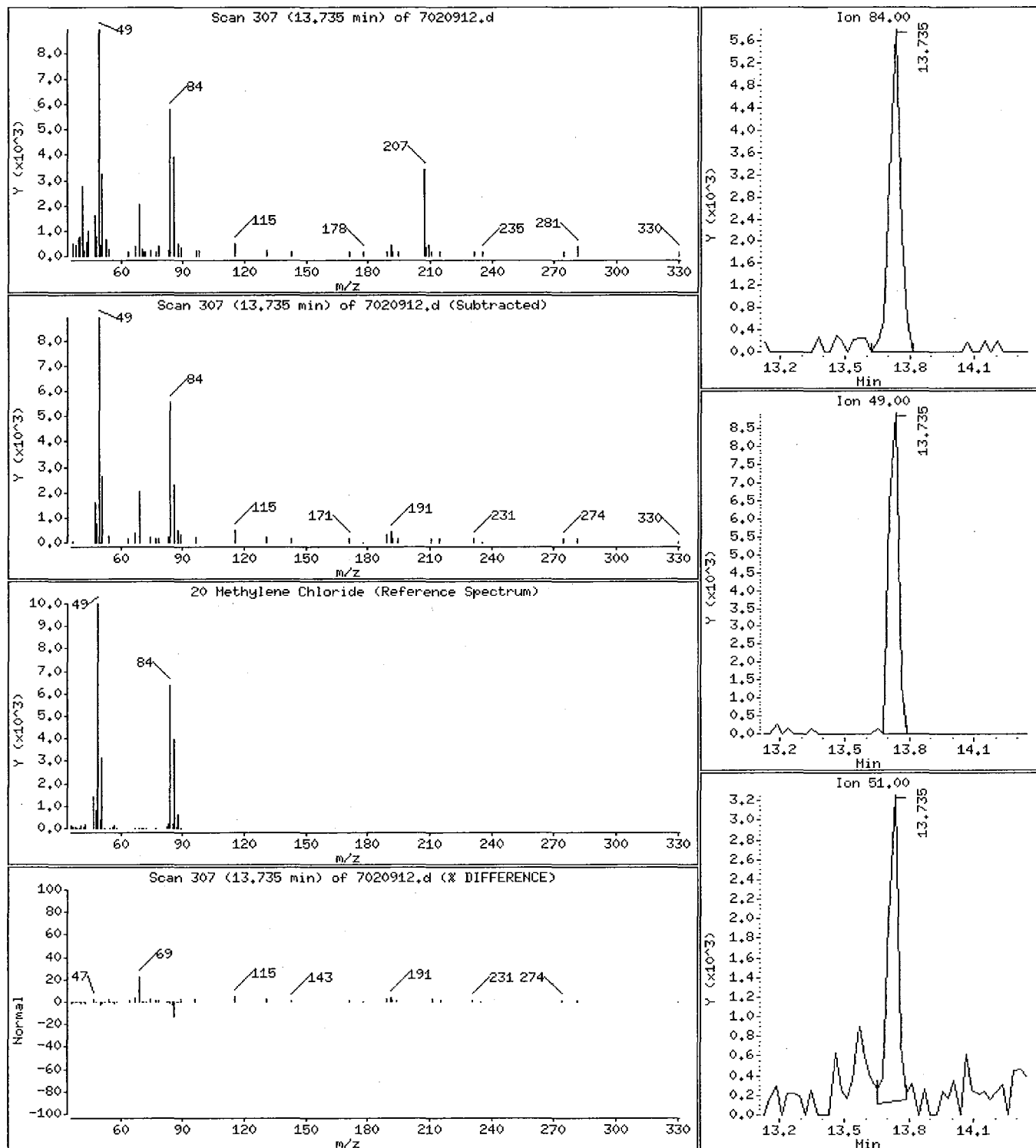
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.3732 PPBV



0462

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

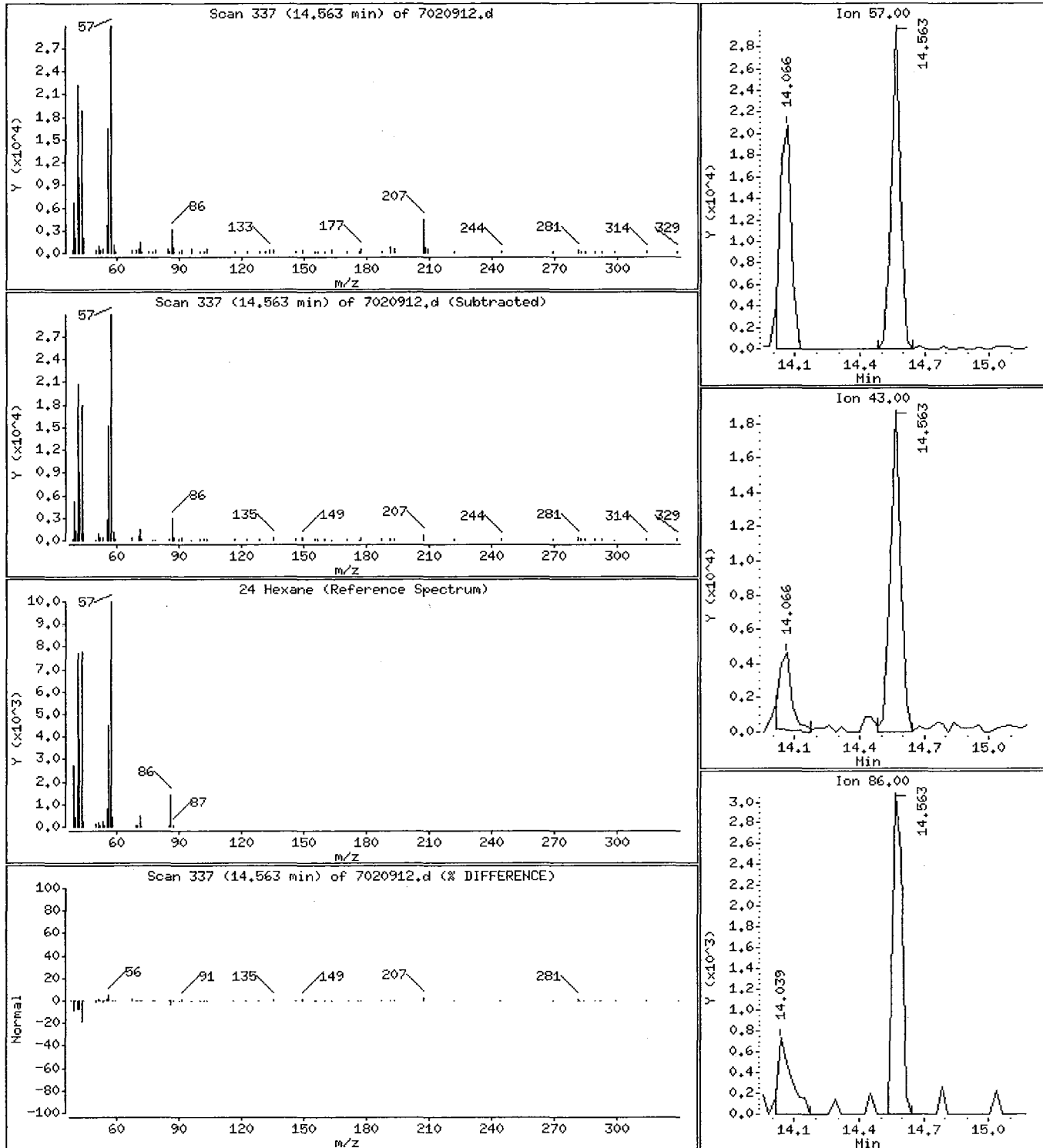
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.8216 PPBV



0463

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

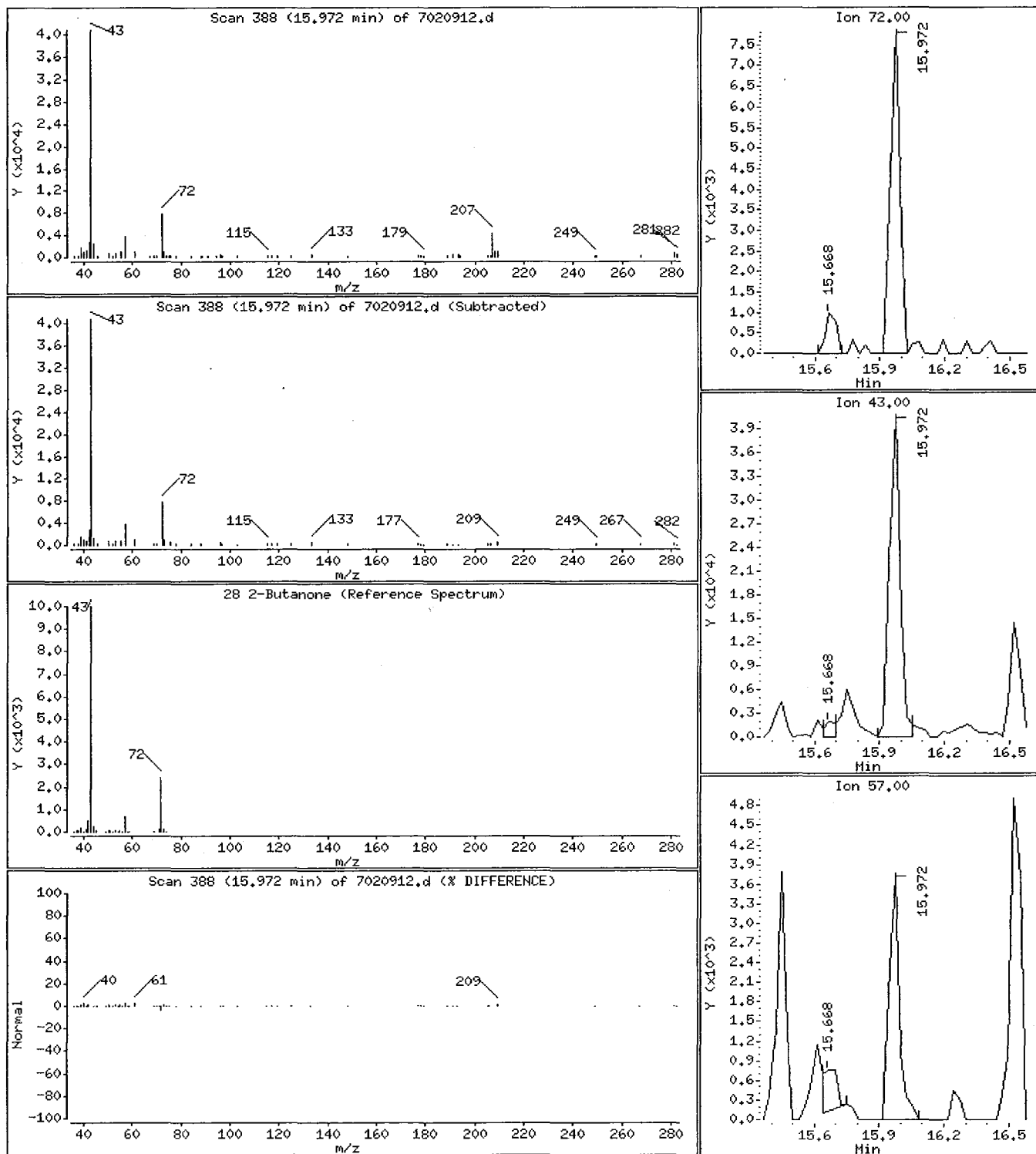
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 0.8292 PPBV



0464

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

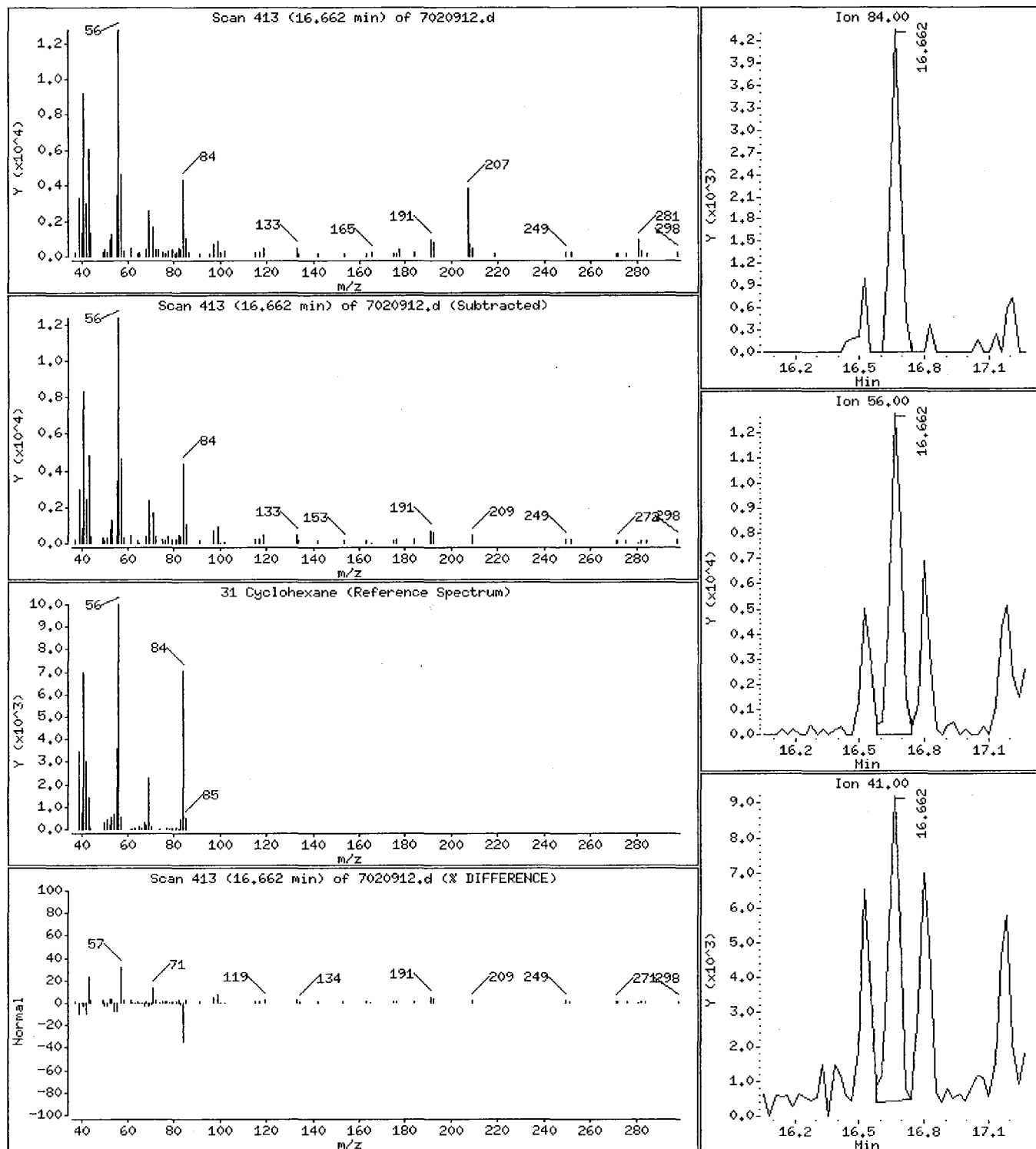
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.2411 PPBV



0465

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

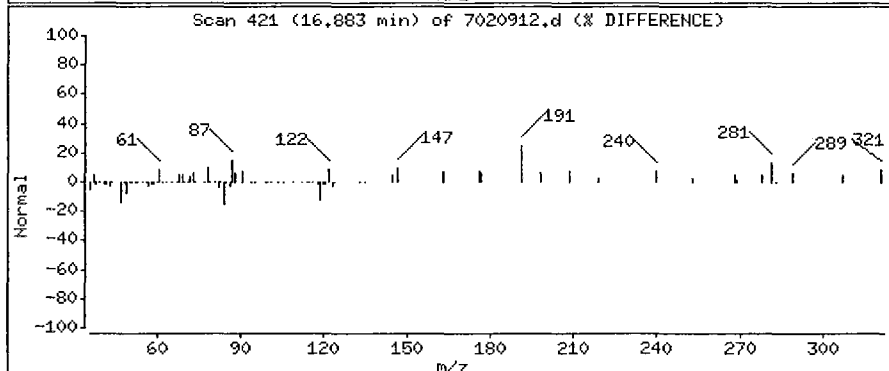
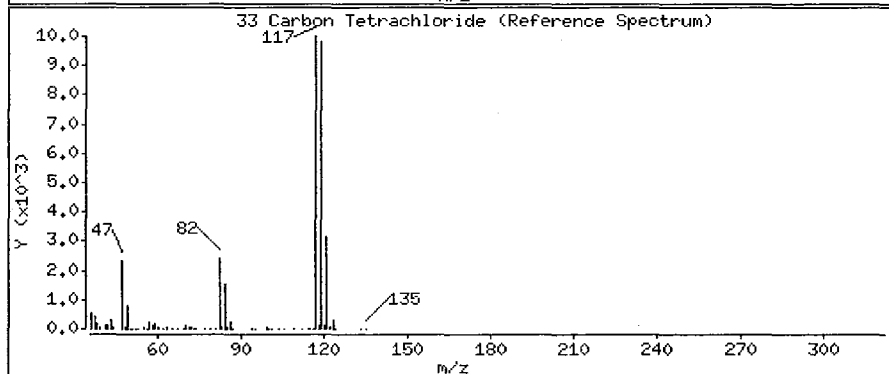
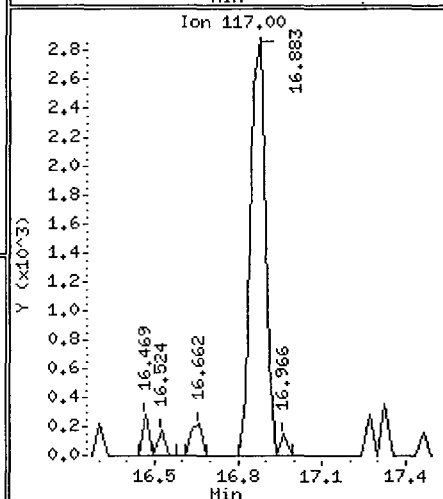
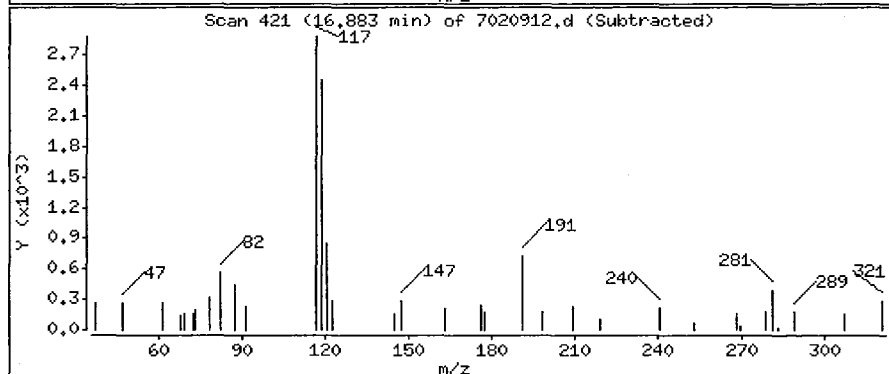
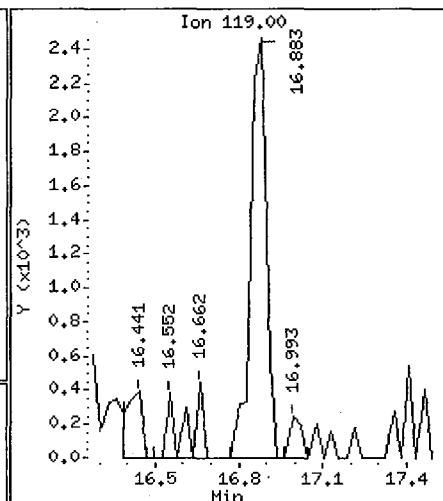
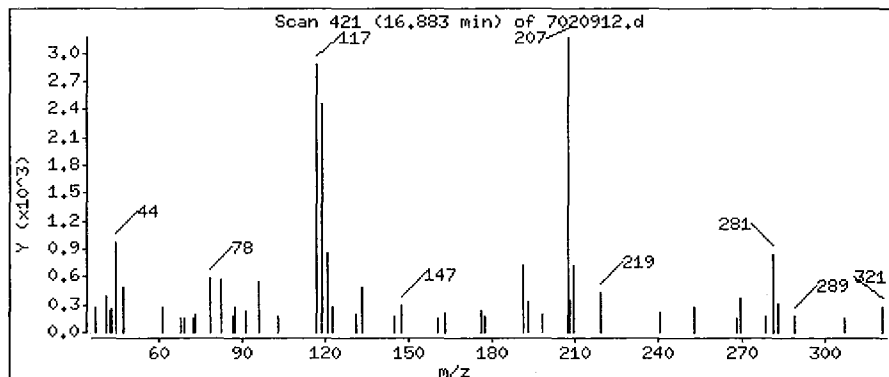
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1030 PPBV



0466

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

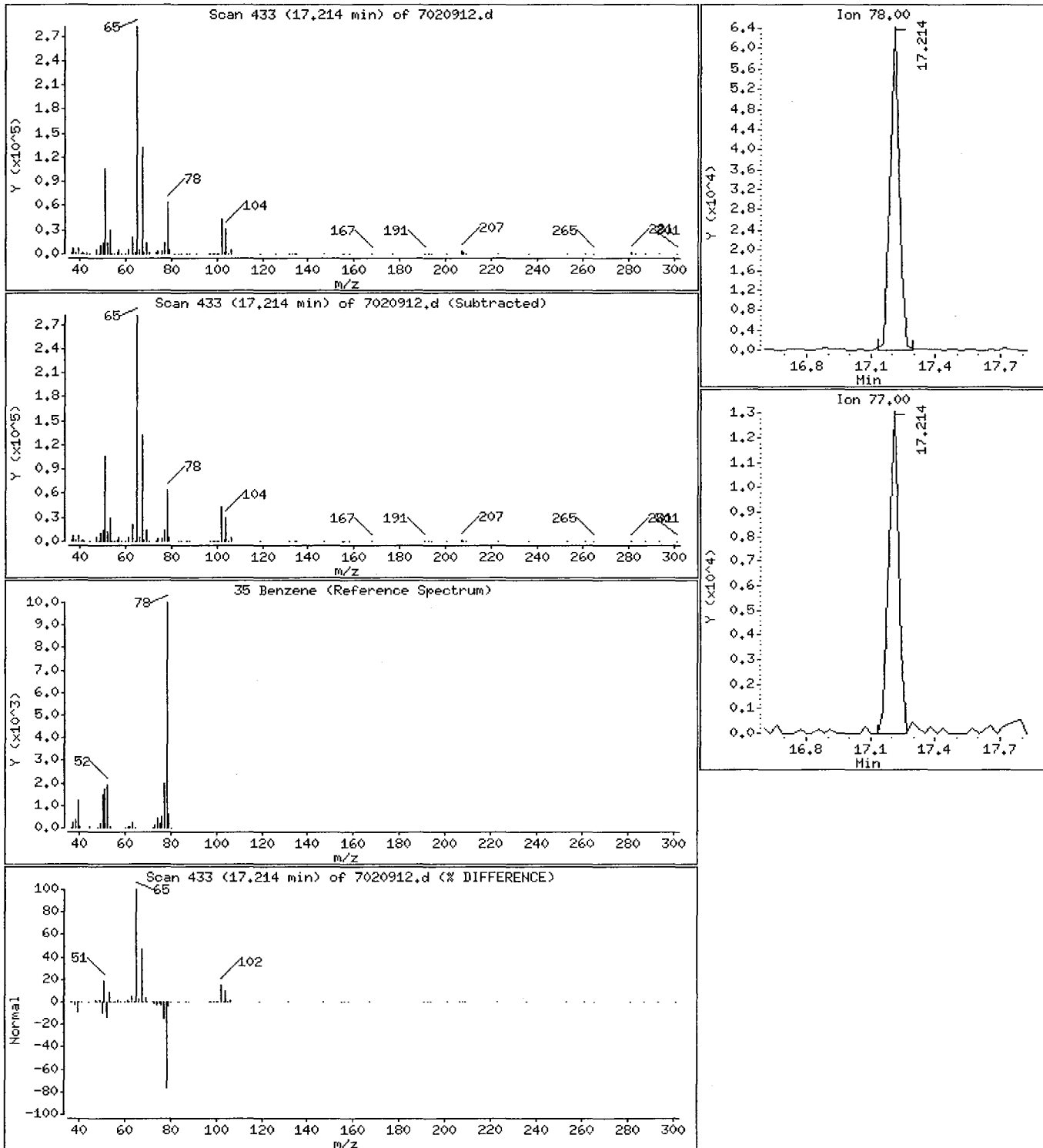
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1,111 PPBV



0467

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

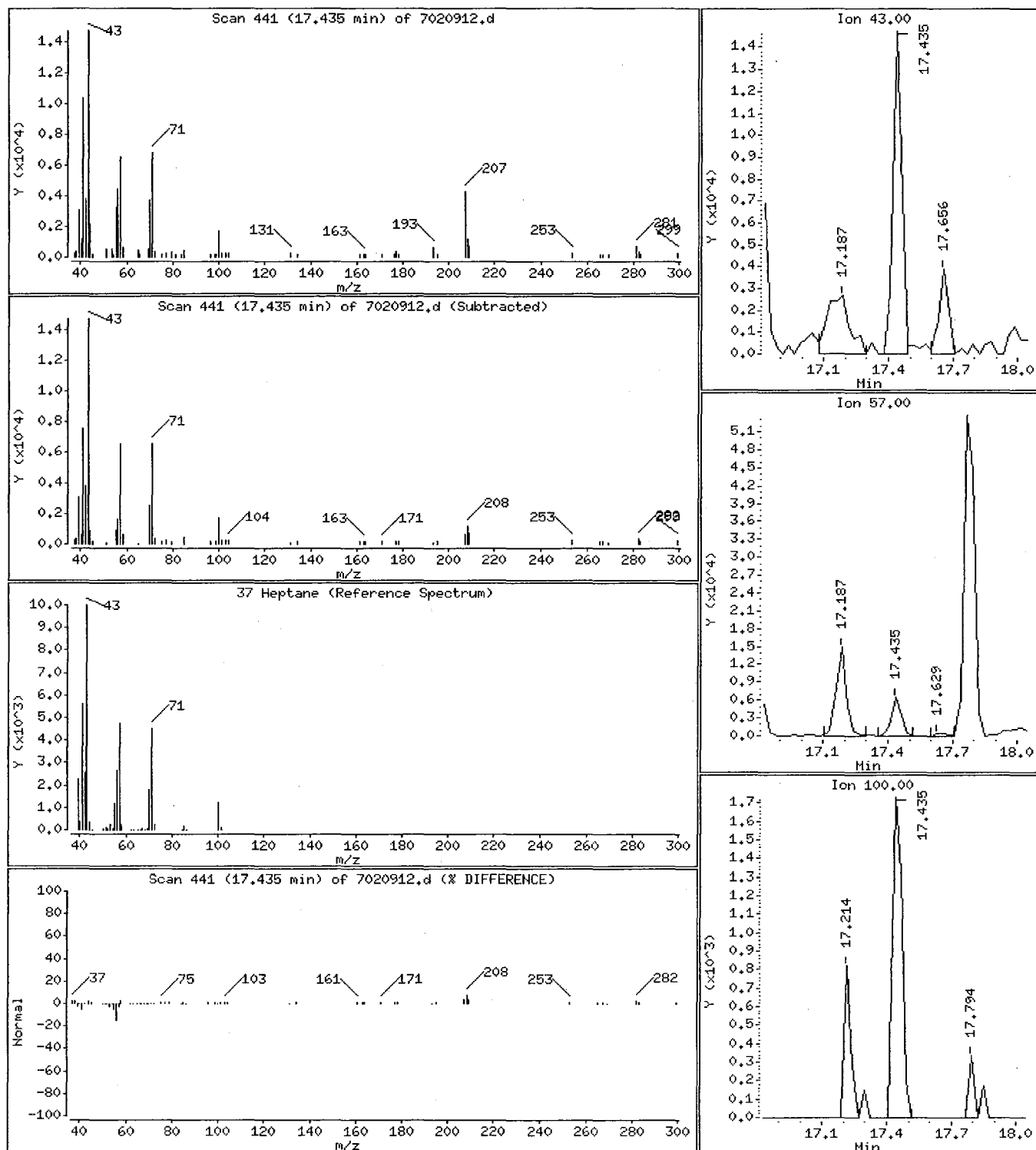
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.4211 PPBV



0468

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

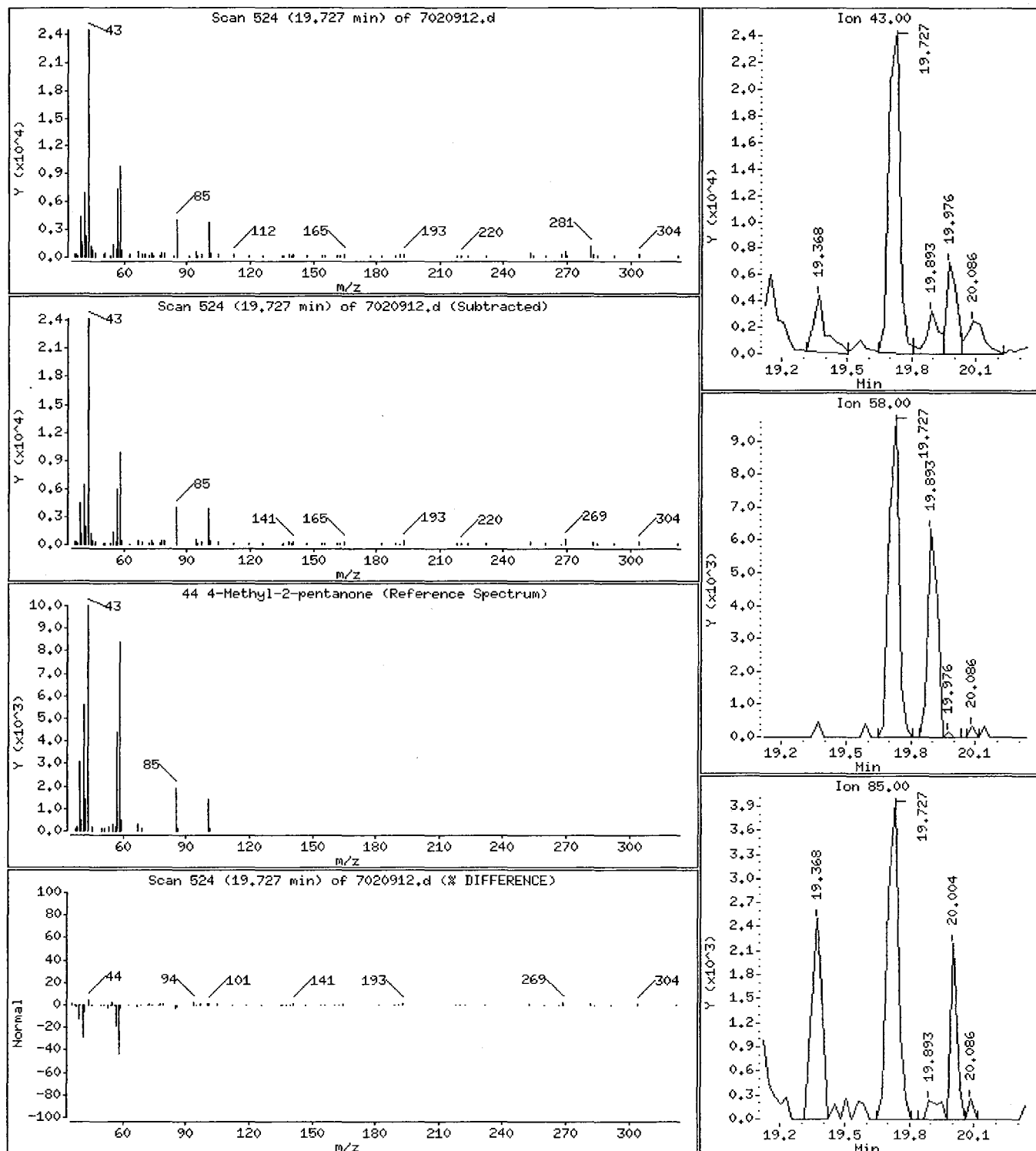
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 0.7989 PPBV



0469

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

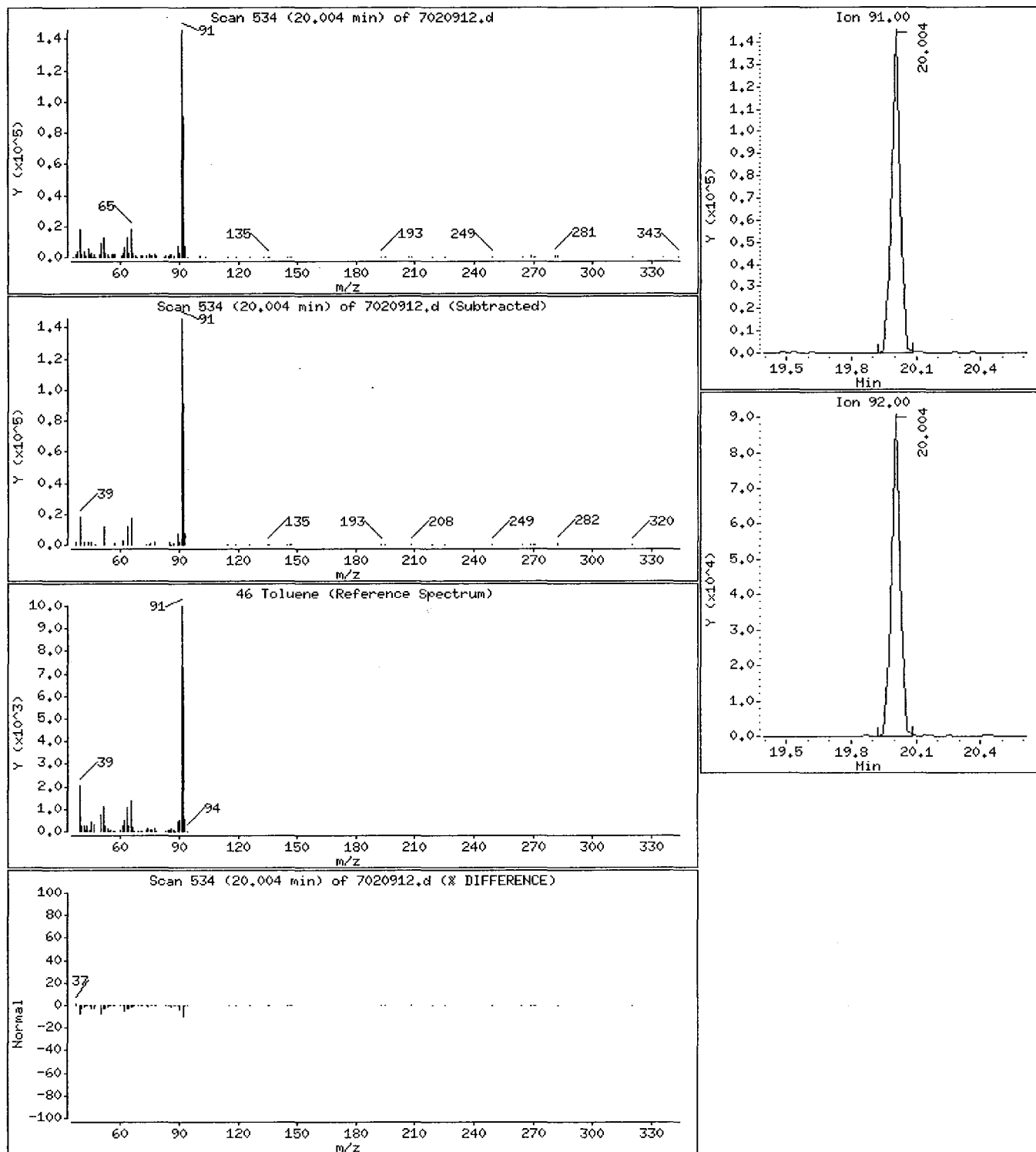
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 2,002 PPBV



0470

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

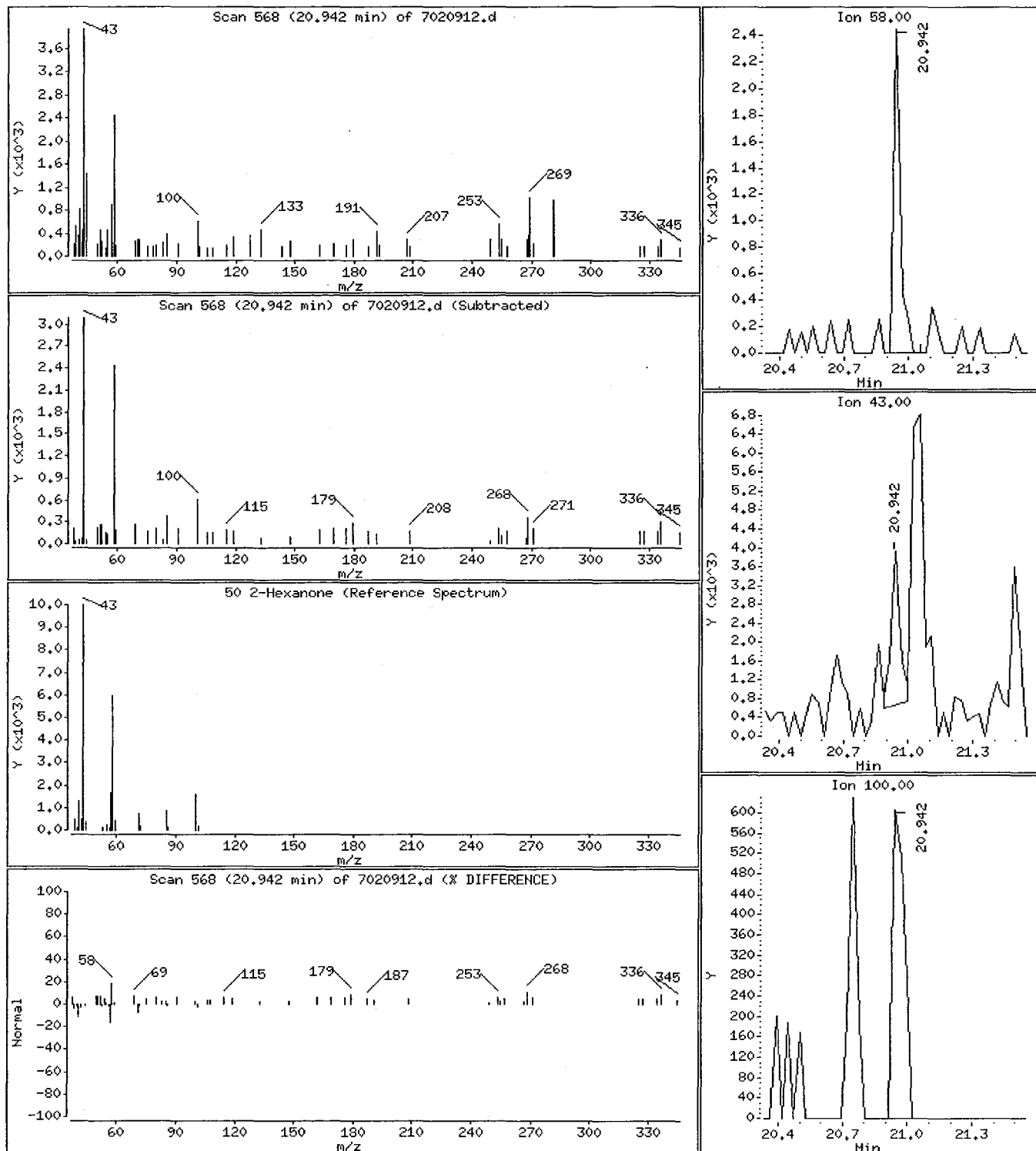
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

50 2-Hexanone

Concentration: 0.09204 PPBV



0471

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

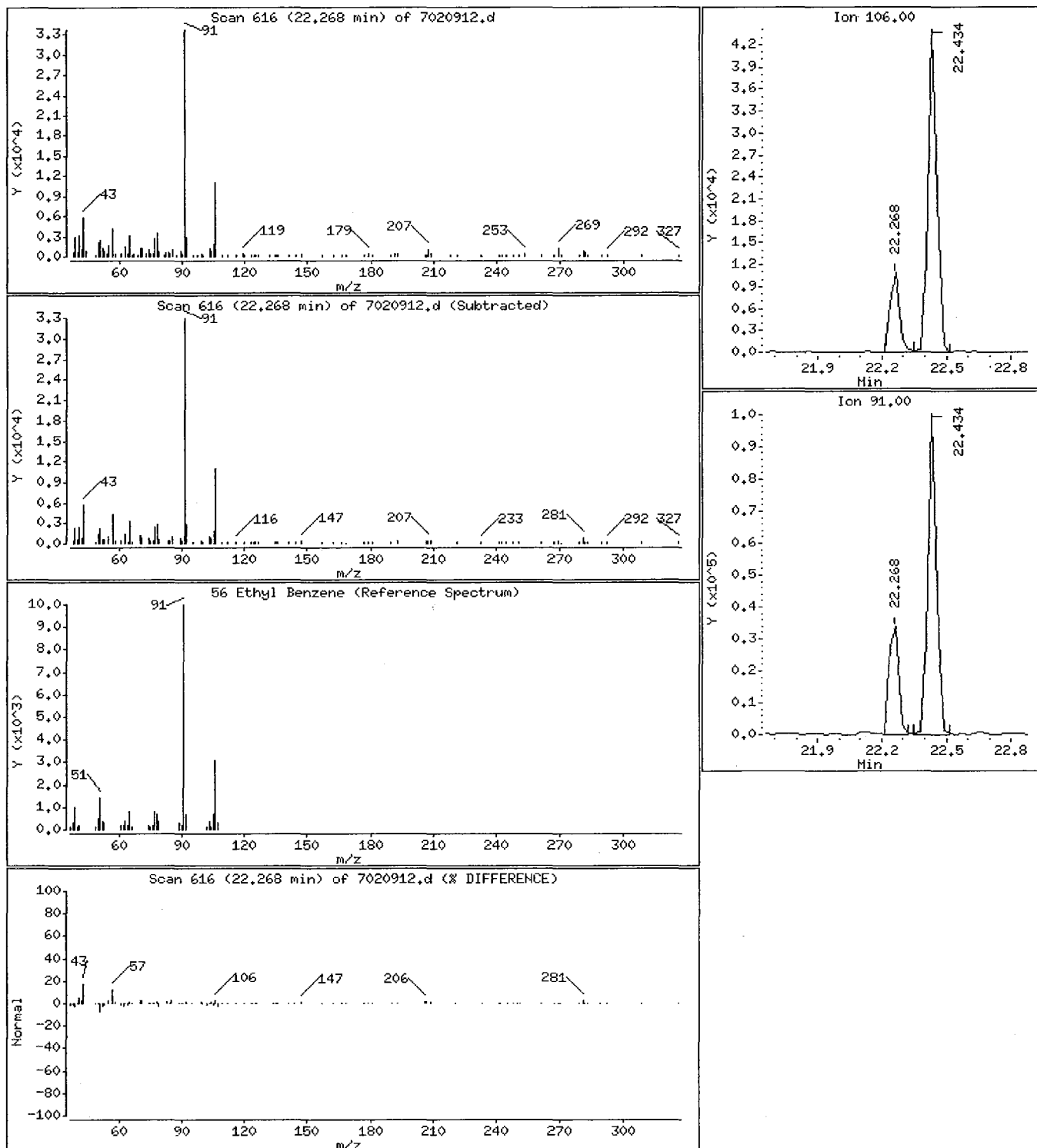
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.4670 PPBV



0472

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

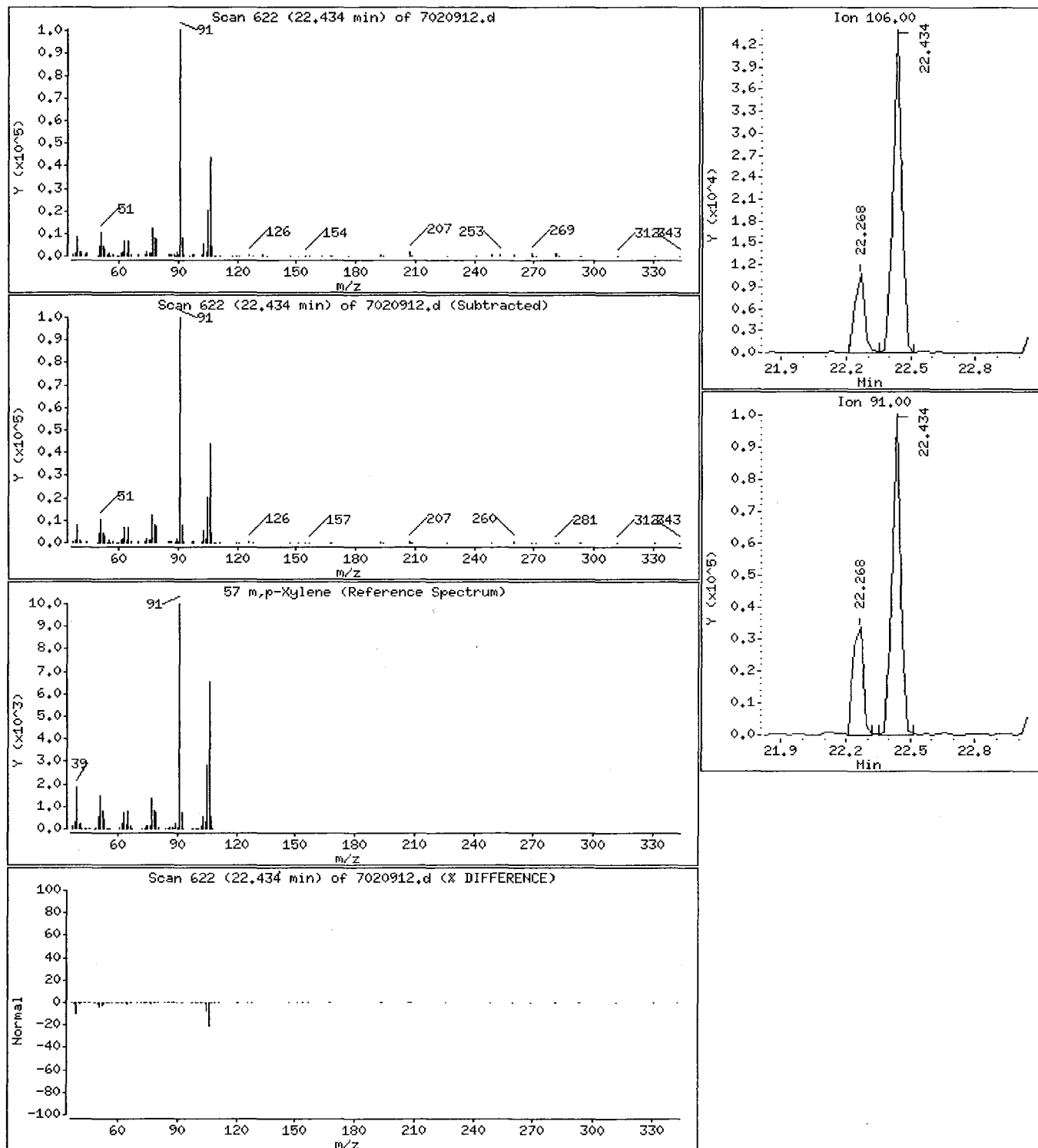
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.424 PPBV



0473

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

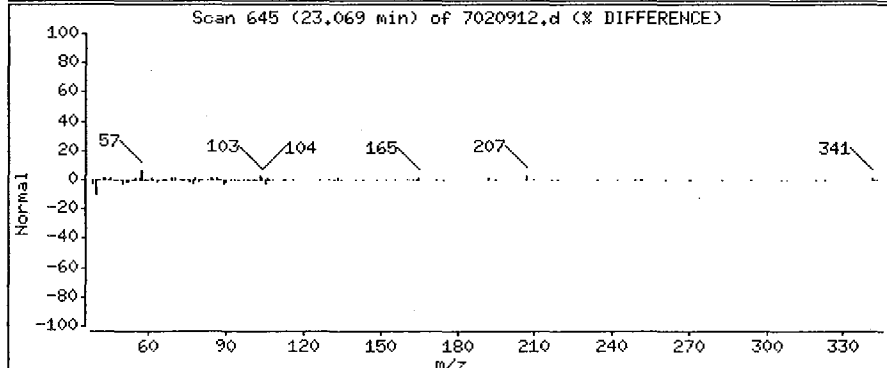
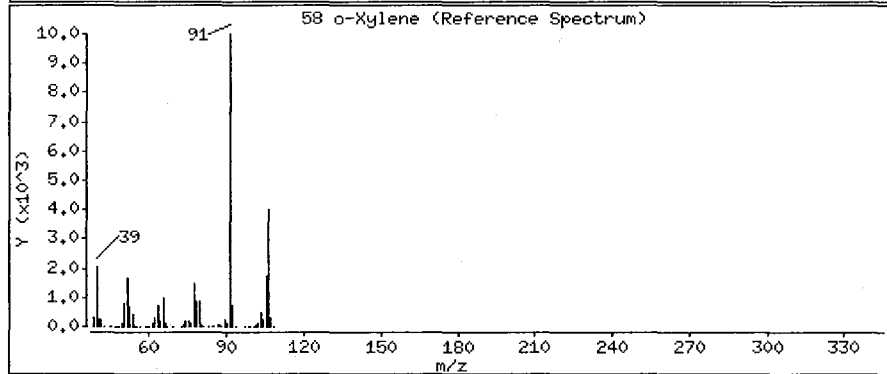
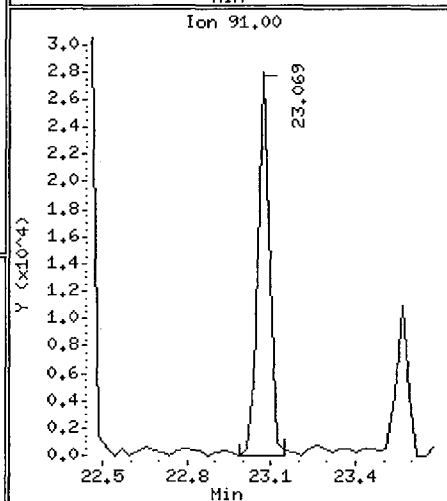
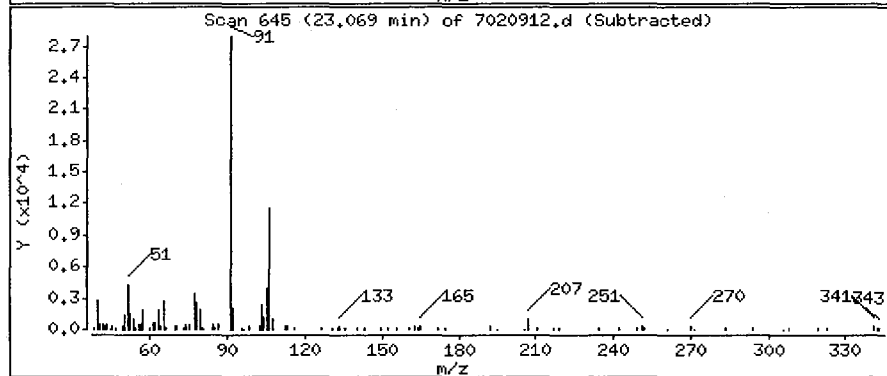
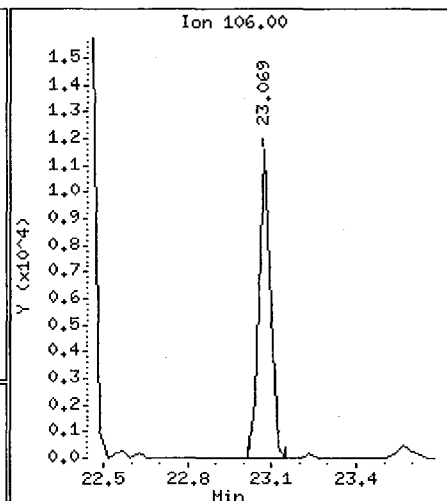
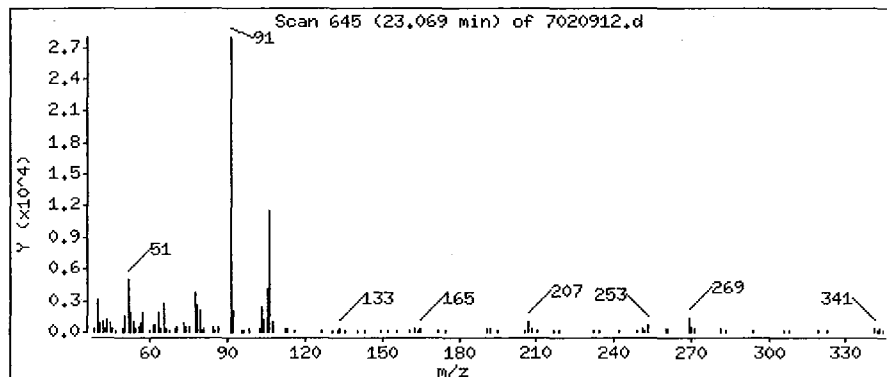
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.4646 PPBV



0474

Date: 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

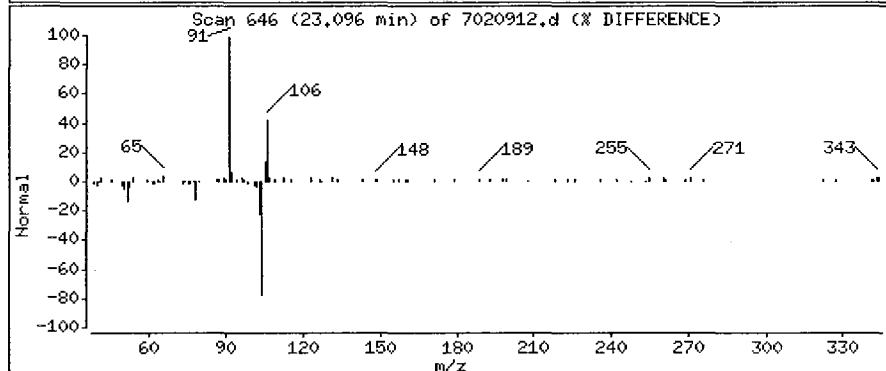
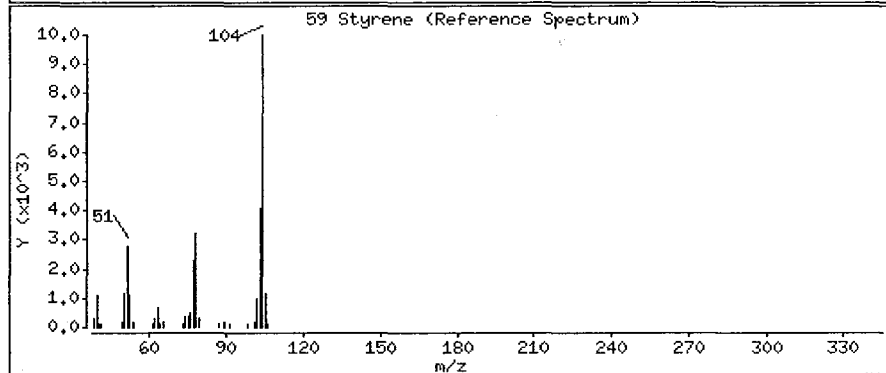
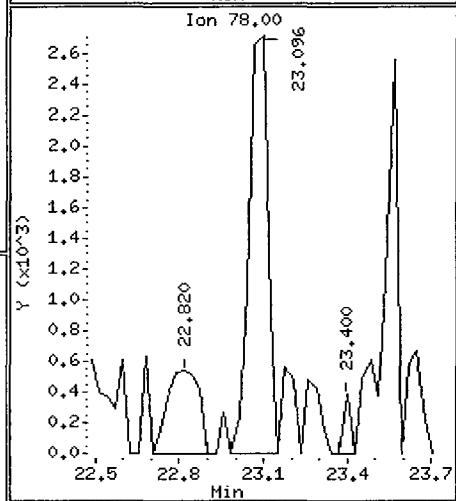
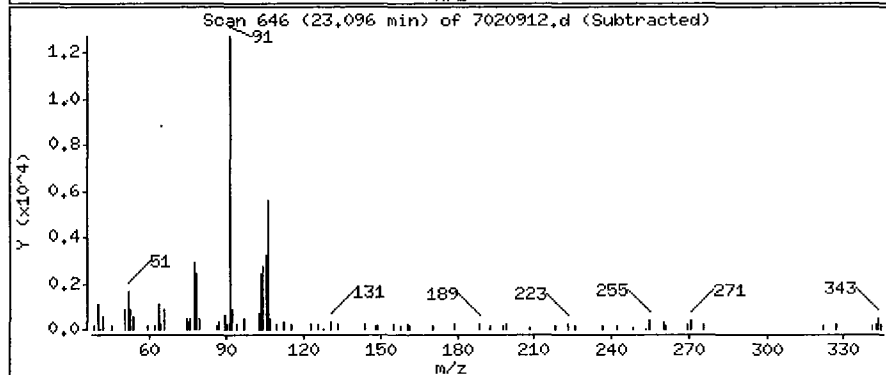
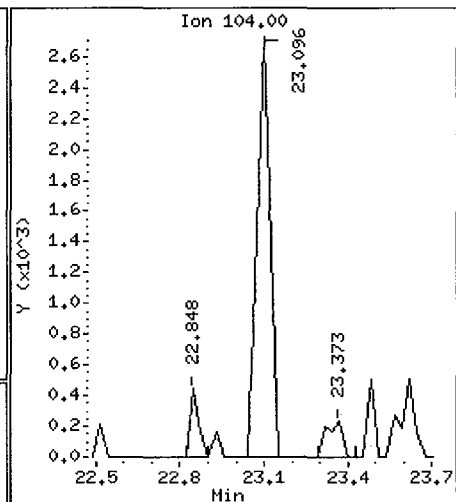
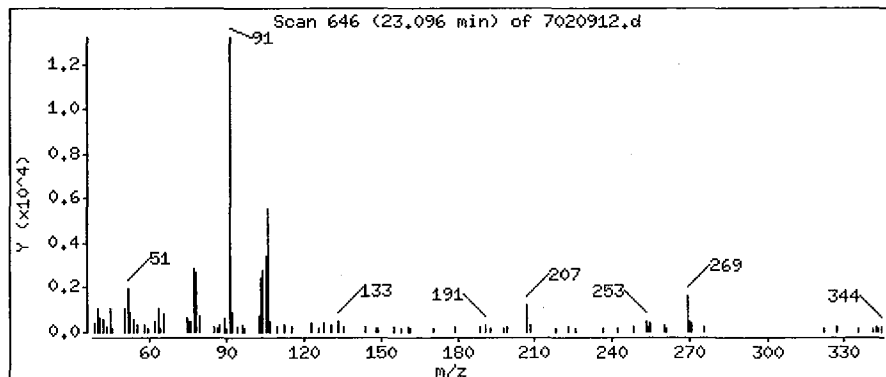
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.07969 PPBV



0475

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

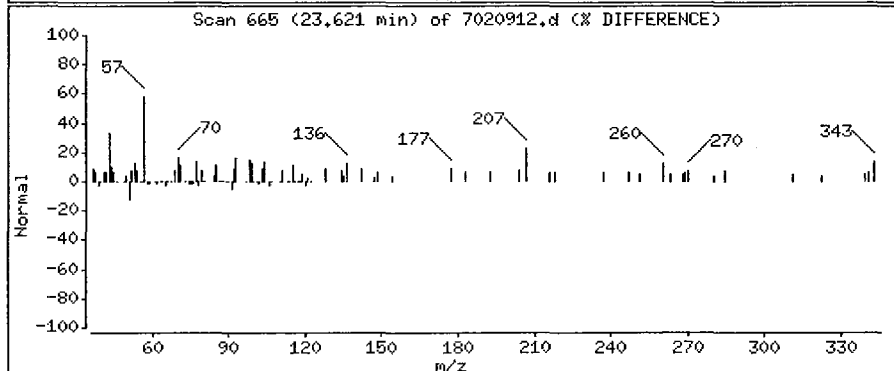
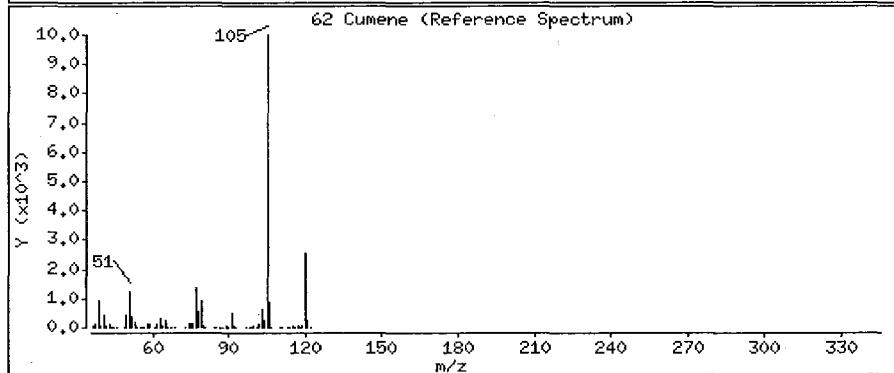
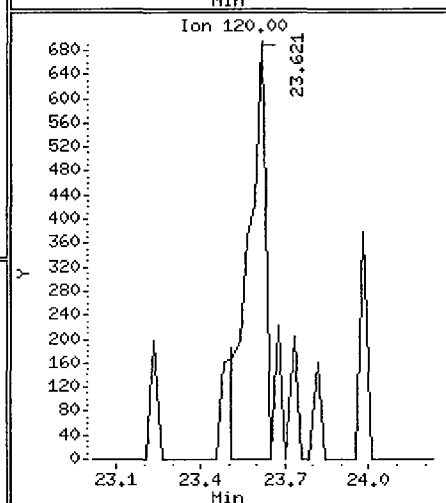
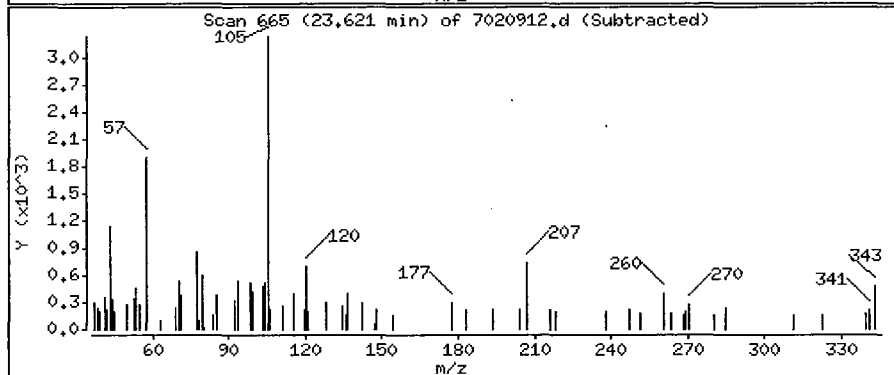
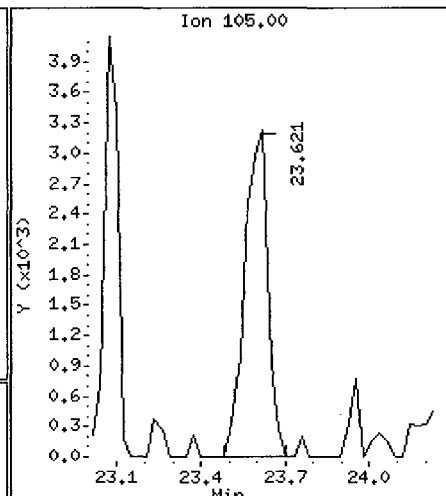
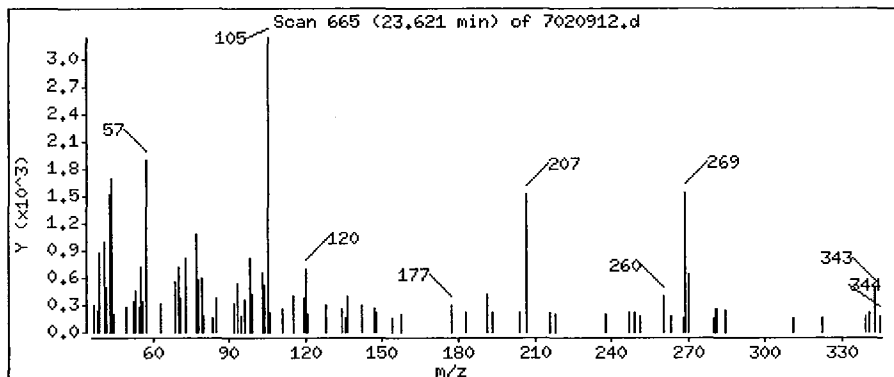
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.1090 PPBV



0476

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

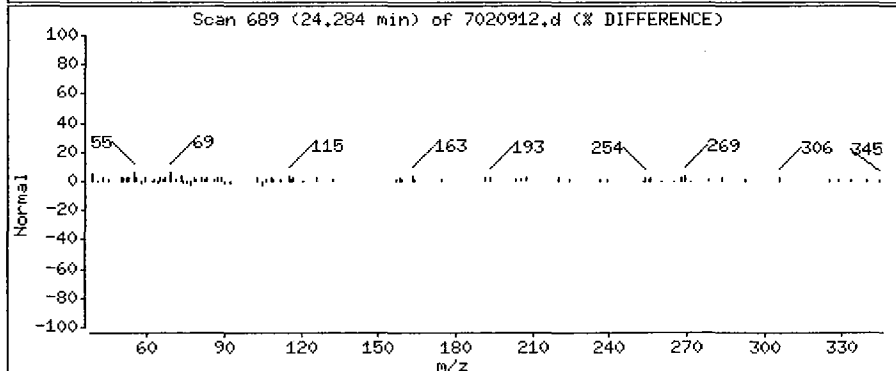
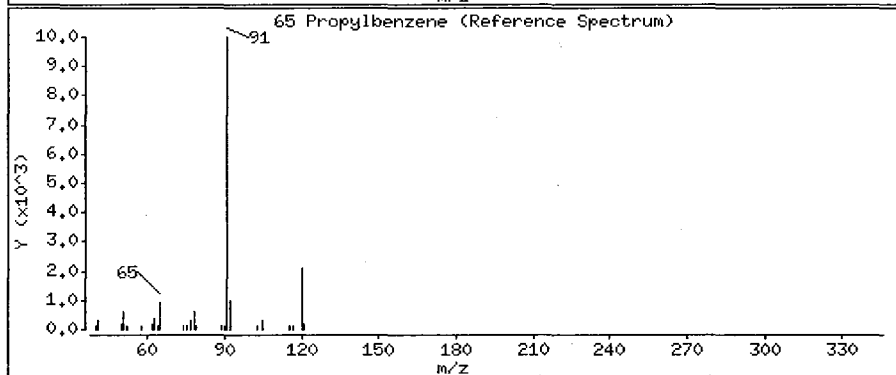
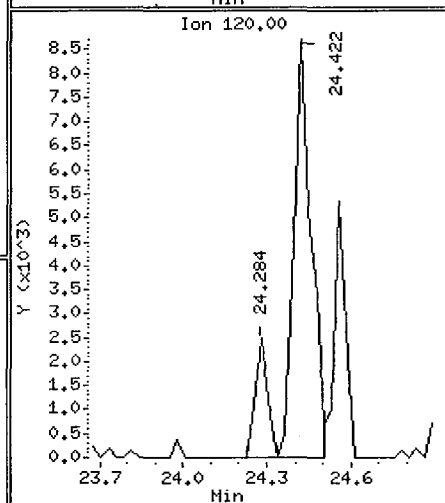
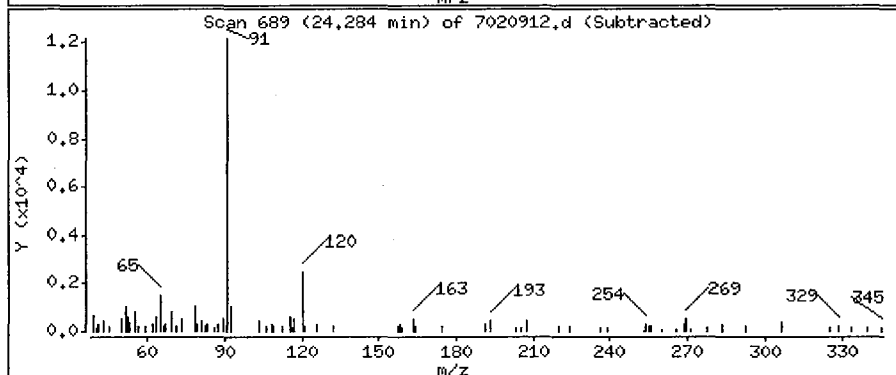
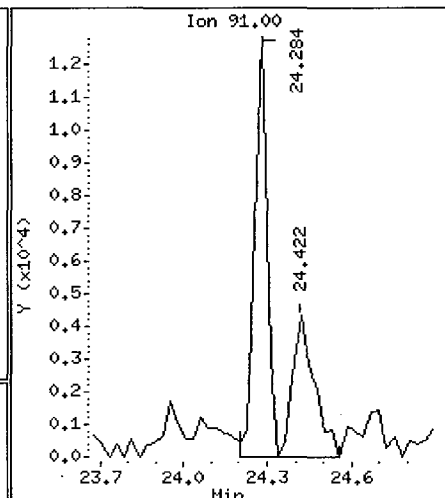
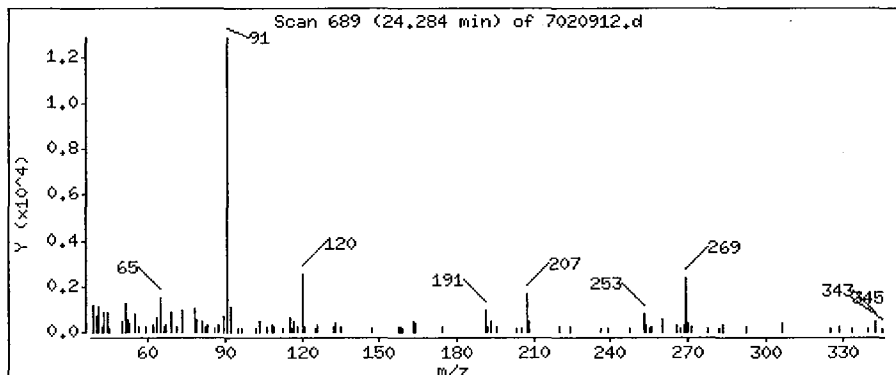
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1708 PPBV



0477

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

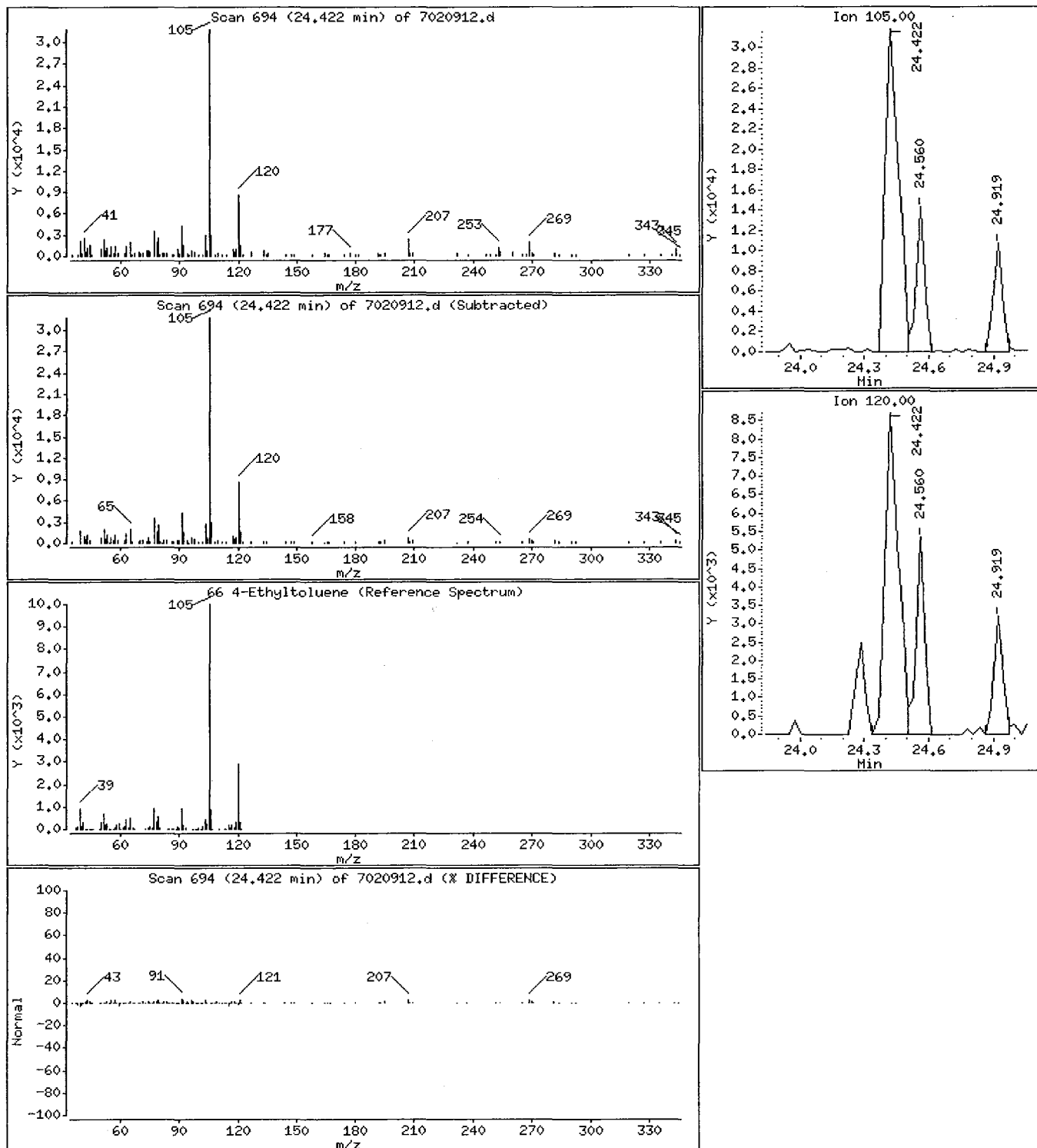
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.7400 PPBV



0478

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

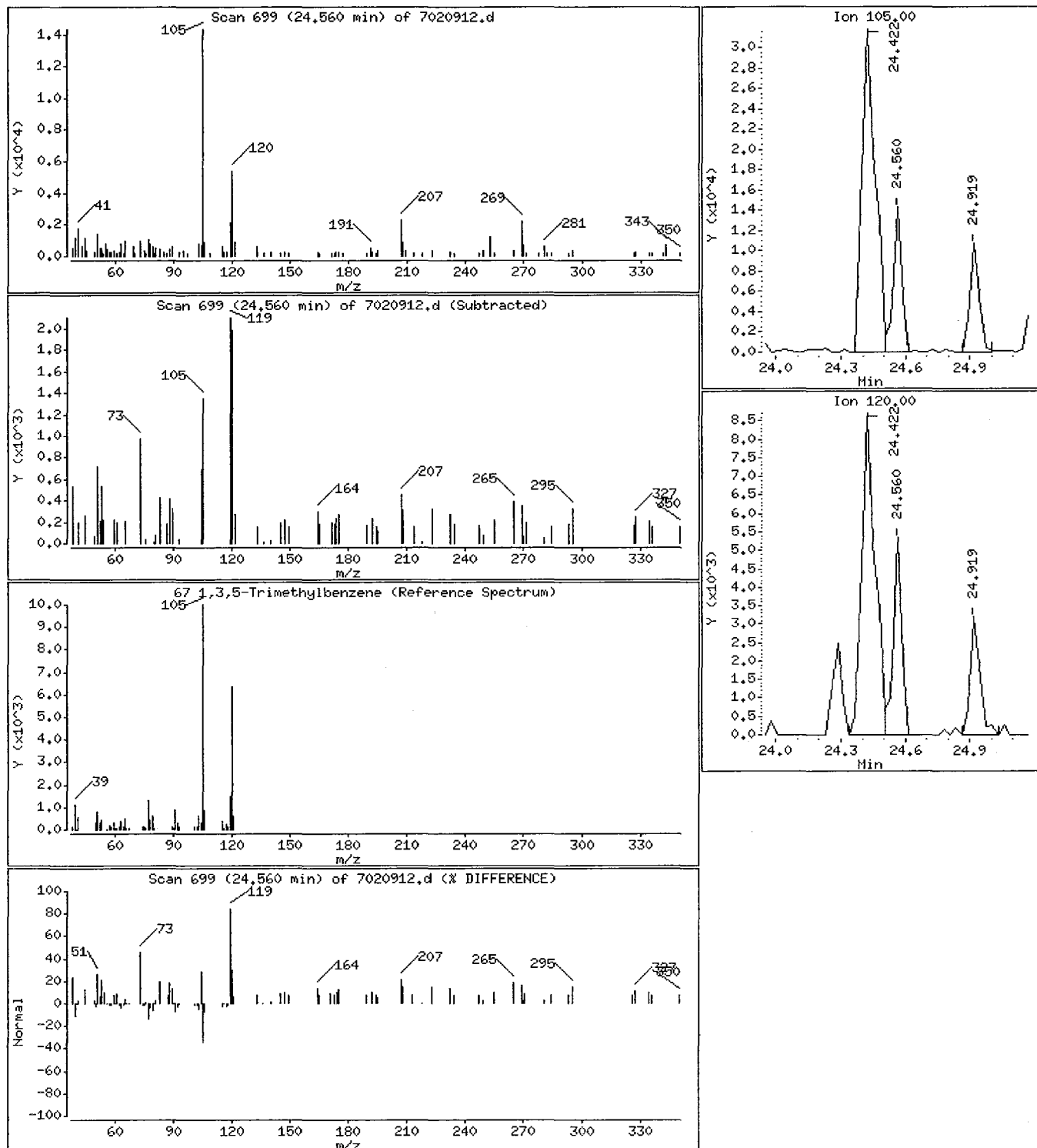
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.2400 PPBV



0479

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

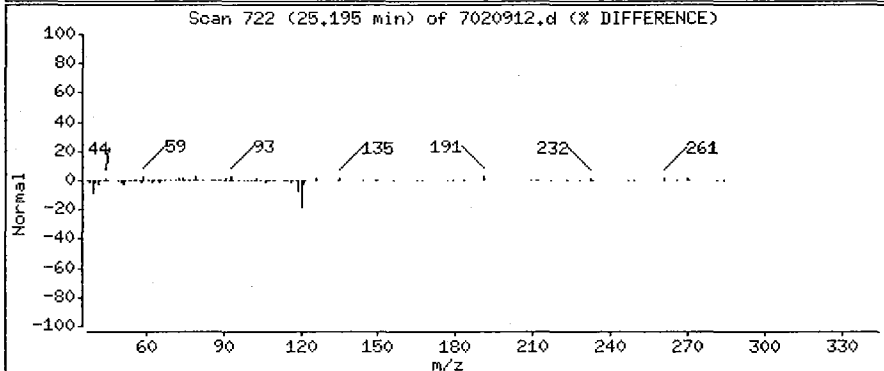
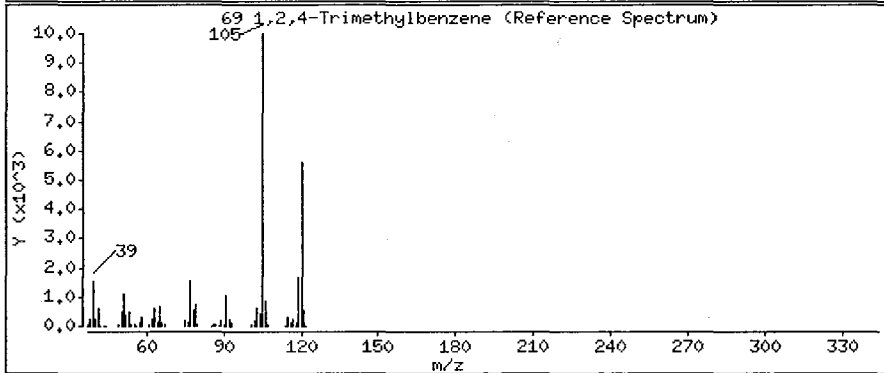
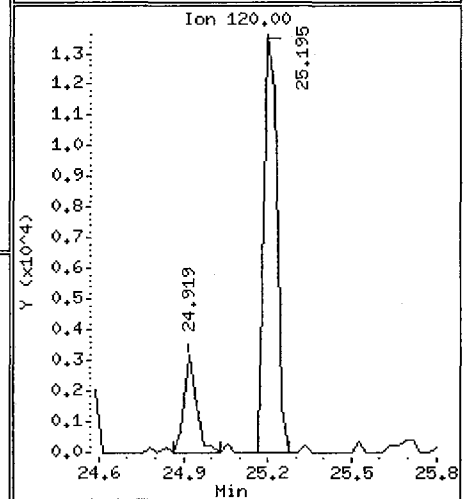
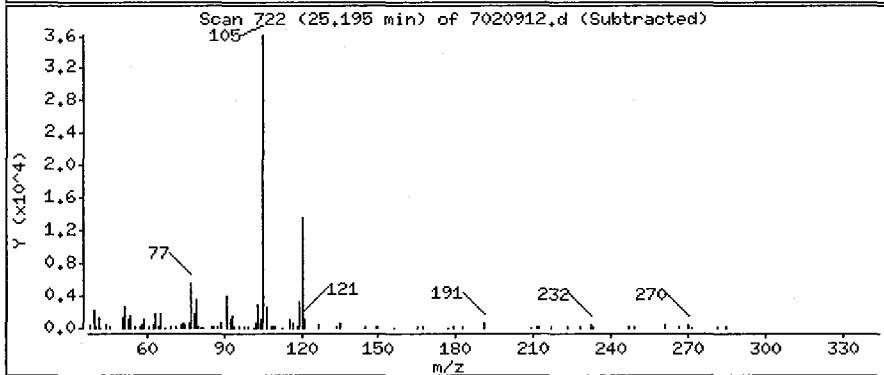
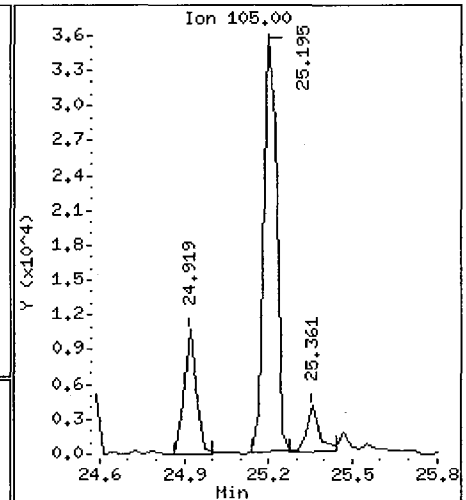
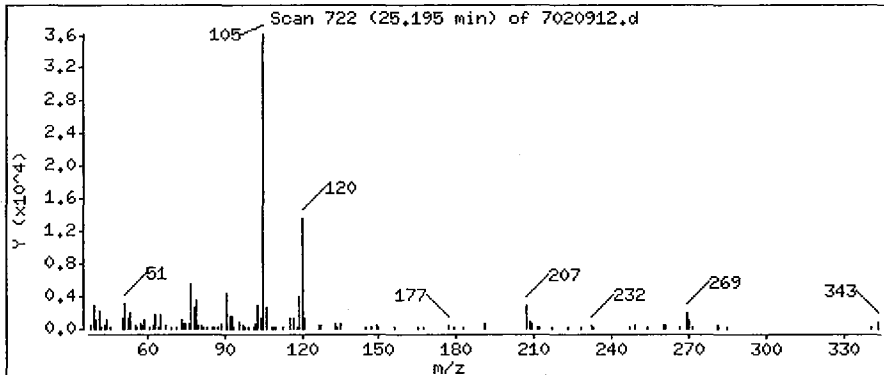
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.7213 PPBV



0480

SCOEPAA00032152

Date : 09-FEB-2005 14:56

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 12711

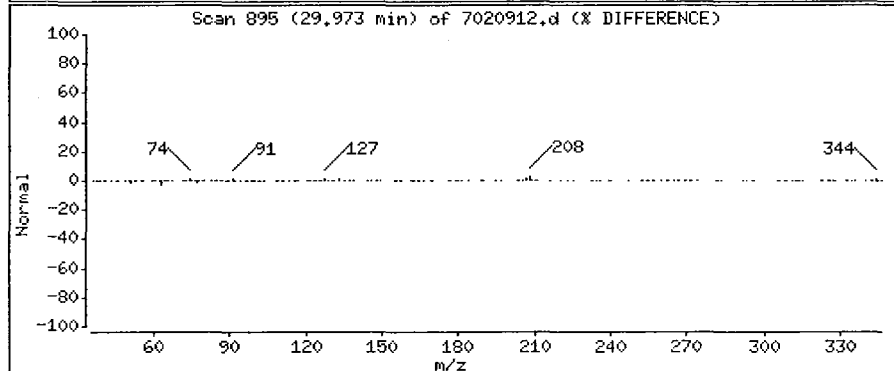
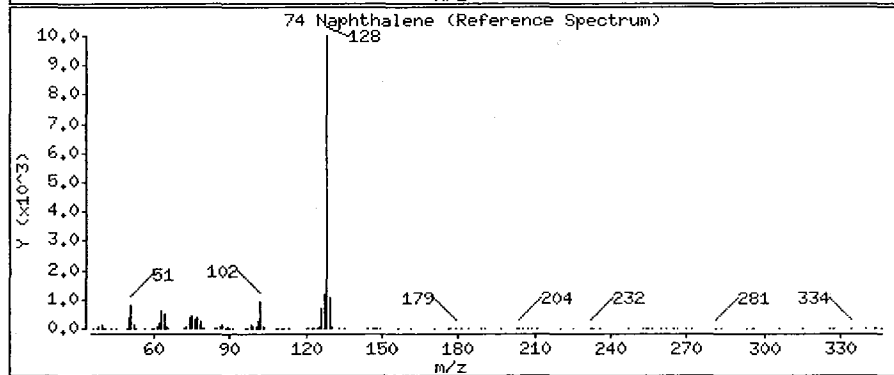
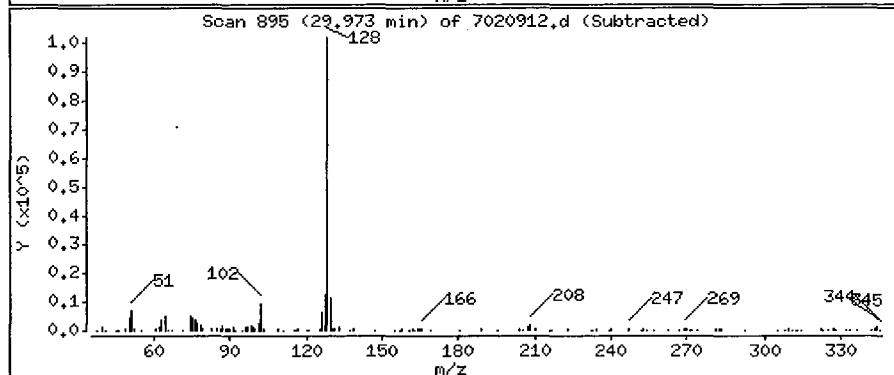
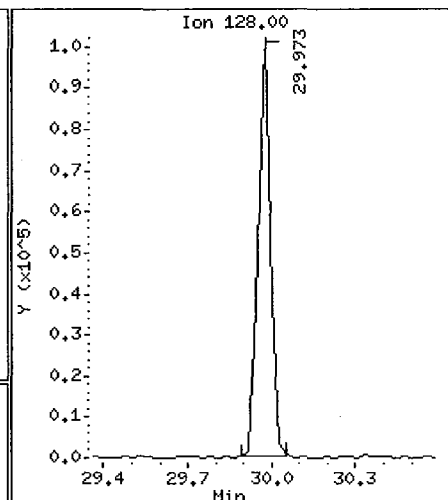
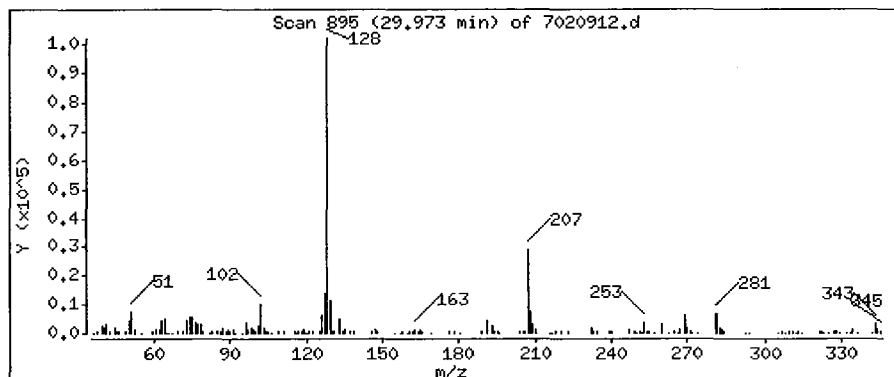
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

74 Naphthalene

Concentration: 0.8500 PPBV



0481

AIR TOXICS LTD.

SAMPLE NAME: #13, Outside, Southeast Fence

ID#: 0502032-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020911	Date of Collection:	1/25/05
Dil. Factor:	1.30	Date of Analysis:	2/9/05 02:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	1.2	0.64	5.8
Freon 114	0.13	Not Detected	0.91	Not Detected
Chloromethane	0.13	0.44	0.27	0.91
Vinyl Chloride	0.13	Not Detected	0.33	Not Detected
Bromomethane	0.13	Not Detected	0.50	Not Detected
Chloroethane	0.13	Not Detected	0.34	Not Detected
Freon 11	0.13	1.5	0.73	8.4
1,1-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Freon 113	0.13	Not Detected	1.0	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.13	Not Detected	0.71	Not Detected
Carbon Tetrachloride	0.13	0.10 J	0.82	0.63 J
Benzene	0.13	1.6	0.42	5.2
1,2-Dichloroethane	0.13	Not Detected	0.53	Not Detected
Trichloroethene	0.13	0.083 J	0.70	0.44 J
1,2-Dichloropropane	0.13	Not Detected	0.60	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.59	Not Detected
Toluene	0.13	4.3	0.49	16
trans-1,3-Dichloropropene	0.13	Not Detected	0.59	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.71	Not Detected
Tetrachloroethene	0.13	Not Detected	0.88	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.60	Not Detected
Ethyl Benzene	0.13	1.1	0.56	4.6
m,p-Xylene	0.13	3.0	0.56	13
o-Xylene	0.13	0.99	0.56	4.3
Styrene	0.13	0.18	0.55	0.76
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.89	Not Detected
1,3,5-Trimethylbenzene	0.13	0.42	0.64	2.0
1,2,4-Trimethylbenzene	0.13	1.2	0.64	6.0
1,3-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
alpha-Chlorotoluene	0.13	Not Detected	0.67	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
Methylene Chloride	0.26	0.41	0.90	1.4
1,2,4-Trichlorobenzene	0.65	0.10 J	4.8	0.78 J
Hexachlorobutadiene	0.65	Not Detected	6.9	Not Detected
1,3-Butadiene	0.65	0.23 J	1.4	0.52 J
Acetone	0.65	2.6	1.5	6.1
Carbon Disulfide	0.65	0.11 J	2.0	0.34 J

AIR TOXICS LTD.

SAMPLE NAME: #13, Outside, Southeast Fence

ID#: 0502032-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020911	Date of Collection:	1/25/05
Dil. Factor:	1.30	Date of Analysis:	2/9/05 02:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.65	0.60 J	1.6	1.5 J
trans-1,2-Dichloroethene	0.65	Not Detected	2.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.65	1.9	1.9	5.6
Hexane	0.65	1.4	2.3	4.8
Tetrahydrofuran	0.65	0.098 J	1.9	0.29 J
Cyclohexane	0.65	0.45 J	2.2	1.5 J
1,4-Dioxane	0.65	Not Detected	2.3	Not Detected
Bromodichloromethane	0.65	Not Detected	4.4	Not Detected
4-Methyl-2-pentanone	0.65	2.8	2.7	11
2-Hexanone	0.65	Not Detected	2.7	Not Detected
Dibromochloromethane	0.65	Not Detected	5.5	Not Detected
Bromoform	0.65	Not Detected	6.7	Not Detected
4-Ethyltoluene	0.65	1.6	3.2	8.0
Ethanol	0.65	4.4	1.2	8.3
Methyl tert-butyl ether	0.65	Not Detected	2.3	Not Detected
Heptane	0.65	0.53 J	2.7	2.2 J
Cumene	0.65	0.26 J	3.2	1.3 J
Propylbenzene	0.65	0.32 J	3.2	1.6 J
Naphthalene	0.65	2.2	3.4	11

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020911.d
Lab Smp Id: 0502032-13A
Inj Date : 09-FEB-2005 14:11
Operator : ts
Smp Info : 500ml, Can# 21006
Misc Info : 0.4psi>5psi, Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.30000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msd7.i

Compound Sublist: ATmdl.sub

Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

CONCENTRATIONS											
		ON-COL		FINAL							
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO				
==	=====	=====	=====	=====	=====	=====	=====				
* 29 Bromochloromethane						CAS #: 74-97-5					
16.331	16.331 (1.000)	130	455656	10.0000		80.00- 120.00	100.00				
16.331	16.331 (1.000)	128	348844			26.96- 126.96	76.56				
16.303	16.331 (1.000)	49	815449			126.50- 226.50	178.96				

* 38 1,4-Difluorobenzene						CAS #: 540-36-3					
17.794	17.794 (1.000)	114	2095866	10.0000		80.00- 120.00	100.00				
17.767	17.794 (1.000)	88	359116			0.00- 67.64	17.13				

* 54 Chlorobenzene-d5						CAS #: 3114-55-4					
22.130	22.130 (1.000)	117	1471447	10.0000		80.00- 120.00	100.00				
22.130	22.130 (1.000)	82	884908			9.26- 109.26	60.14				

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0					
17.215	17.214 (1.054)	65	974022	10.3788	10.379	80.00- 120.00	100.00				
17.215	17.214 (1.054)	67	439699			0.17- 100.17	45.14				

\$ 45 Toluene-d8						CAS #: 2037-26-5					
19.893	19.893 (1.118)	98	1761451	9.85110	9.851	80.00- 120.00	100.00				
19.893	19.893 (1.118)	70	222084			0.00- 62.11	12.61				

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CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1237932			22.24- 122.24	70.28	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	791579	10.4137	10.414	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1226576			97.68- 197.68	154.95	
23.953	23.953	(1.082)	176	763537			43.78- 143.78	96.46	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.920	5.947	(0.362)	85	334637	0.90604	1.178	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	106464			0.00- 81.67	31.81	

4 Chloromethane						CAS #: 74-87-3			
7.328	7.356	(0.449)	50	35956	0.33768	0.4390	80.00- 120.00	100.00	
7.328	7.356	(0.449)	52	14449			0.00- 84.65	40.19	

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	17416	0.17941	0.2332	80.00- 120.00	100.00(a)	
8.267	8.295	(0.506)	39	20444			48.03- 148.03	117.39	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.029	11.056	(0.675)	101	370843	1.15469	1.501	80.00- 120.00	100.00	
11.029	11.056	(0.675)	103	232223			13.78- 113.78	62.62	

12 Ethanol						CAS #: 64-17-5			
12.023	12.050	(0.736)	45	153148	3.39742	4.417	80.00- 120.00	100.00	
12.023	12.050	(0.736)	43	35809			0.00- 76.71	23.38	
12.023	12.050	(0.736)	46	59458			0.00- 90.17	38.82	

16 Acetone						CAS #: 67-64-1			
12.824	12.824	(0.785)	43	475357	1.97982	2.574	80.00- 120.00	100.00	
12.824	12.824	(0.785)	58	131526			0.00- 78.78	27.67	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	105360	0.46426	0.6035	80.00- 120.00	100.00(a)	
13.238	13.238	(0.811)	43	21420			0.00- 69.75	20.33	
13.238	13.238	(0.811)	59	4241			0.00- 53.72	4.03	

17 Carbon Disulfide						CAS #: 75-15-0			
12.907	12.906	(0.790)	76	25497	0.08550	0.1111	80.00- 120.00	100.00(a)	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	30262	0.31849	0.4140	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	41021			111.57- 211.57	135.55	
13.735	13.735	(0.841)	51	13620			0.00- 93.42	45.01	

0485

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	188503	1.04697	1.361	80.00- 120.00	100.00
14.563	14.563	(0.892)	43	142821			15.23- 115.23	75.77
14.563	14.563	(0.892)	86	31310			0.00- 65.23	16.61

28 2-Butanone						CAS #: 78-93-3		
15.972	15.972	(0.978)	72	72772	1.46261	1.901	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	391966			1046.10-1146.10	538.62
15.972	15.972	(0.978)	57	30251			0.00- 89.21	41.57

23 Tetrahydrofuran						CAS #: 109-99-9		
16.331	16.331	(1.000)	42	10437	0.07559	0.09827	80.00- 120.00	100.00(a)
16.303	16.331	(0.998)	71	7257			0.00- 82.39	69.53
16.331	16.331	(1.000)	72	3209			0.00- 86.54	30.75

31 Cyclohexane						CAS #: 110-82-7		
16.662	16.662	(1.020)	84	34193	0.34347	0.4465	80.00- 120.00	100.00(a)
16.662	16.662	(1.020)	56	101415			93.37- 193.37	296.60
16.662	16.662	(1.020)	41	65796			30.80- 130.80	192.43

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.856	16.883	(1.032)	119	12693	0.07757	0.1008	80.00- 120.00	100.00(a)
16.883	16.883	(1.034)	117	14086			62.01- 162.01	110.97

35 Benzene						CAS #: 71-43-2		
17.215	17.214	(0.967)	78	383475	1.26073	1.639	80.00- 120.00	100.00
17.215	17.214	(0.967)	77	87043			0.00- 72.07	22.70

37 Heptane						CAS #: 142-82-5		
17.435	17.435	(0.980)	43	72458	0.40799	0.5304	80.00- 120.00	100.00(a)
17.435	17.435	(0.980)	57	36060			1.42- 101.42	49.77
17.463	17.435	(0.981)	100	13937			0.00- 66.93	19.23

39 Trichloroethene						CAS #: 79-01-6		
18.153	18.153	(1.020)	130	6816	0.06380	0.08294	80.00- 120.00	100.00(a)
18.153	18.153	(1.020)	95	9243			66.40- 166.40	135.61
18.153	18.153	(1.020)	97	6984			23.45- 123.45	102.46

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.728	19.727	(1.109)	43	424022	2.15819	2.806	80.00- 120.00	100.00
19.728	19.727	(1.109)	58	155237			0.00- 87.49	36.61
19.728	19.727	(1.109)	85	70609			0.00- 66.91	16.65

46 Toluene						CAS #: 108-88-3		
20.004	20.004	(1.124)	91	1158120	3.32342	4.320	80.00- 120.00	100.00
20.004	20.004	(1.124)	92	716851			11.18- 111.18	61.90

0486

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	98695	0.81693	1.062	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	338989			294.68- 394.68	343.47	

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	345830	2.34049	3.043	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	781222			168.06- 268.06	225.90	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	91592	0.76116	0.9895	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	216612			186.48- 286.48	236.50	

59 Styrene						CAS #: 100-42-5			
23.097	23.096	(1.044)	104	25497	0.13688	0.1779	80.00- 120.00	100.00	
23.097	23.096	(1.044)	78	29390			6.37- 106.37	115.27	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	58609	0.20063	0.2608	80.00- 120.00	100.00(a)	
23.621	23.621	(1.067)	120	10882			0.00- 70.65	18.57	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	97577	0.24274	0.3156	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	19832			0.00- 69.13	20.32	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	400170	1.24813	1.622	80.00- 120.00	100.00	
24.422	24.450	(1.104)	120	105743			0.00- 73.94	26.42	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	91215	0.32067	0.4169	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	33729			0.00- 88.64	36.98	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	253844	0.93284	1.213	80.00- 120.00	100.00	
25.223	25.195	(1.140)	120	95063			0.00- 87.09	37.45	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.476	29.476	(1.332)	180	11950	0.08146	0.1059	80.00- 120.00	100.00(a)	
29.476	29.476	(1.332)	182	8681			44.99- 144.99	72.64	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	1008224	1.66991	2.171	80.00- 120.00	100.00	

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Data File: /chem/msd7.i/7-09feb.b/7020911.d
Report Date: 11-Feb-2005 17:49

Page 5

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0488

SCOEPA00032160

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020911.d
Lab Smp Id: 0502032-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: ts
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 0.4psi>5psi, Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	455656	-3.99
38 1,4-Difluorobenze	2234295	1340577	3128013	2095866	-6.20
54 Chlorobenzene-d5	1557243	934346	2180140	1471447	-5.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

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SCOEPAA00032161

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-13A
Level: LOW Operator: ts
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 0.4psi>5psi, Clayton

SURROGATE COMPOUND	CONC	CONC	%	LIMITS
	ADDED PPBV	RECOVERED PPBV	RECOVERED	
\$ 34 1,2-Dichloroethane	10.000	10.379	103.79	70-130
\$ 45 Toluene-d8	10.000	9.851	98.51	70-130
\$ 63 Bromofluorobenzene	10.000	10.414	104.14	70-130

0490

SCOEPA00032162

Date : 09-FEB-2005 14:11

Client ID:

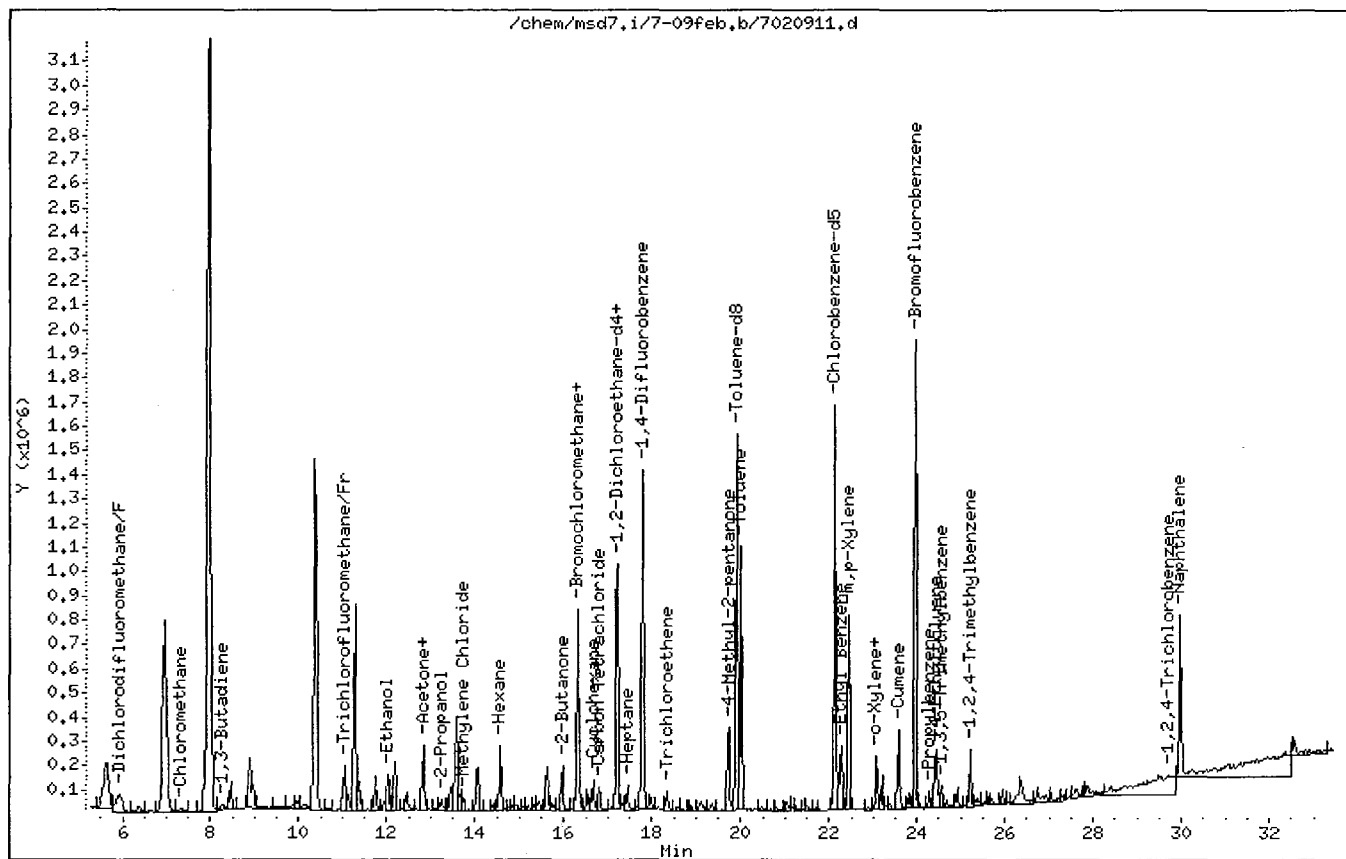
Instrument: msd7.i

Sample Info: 500ml, Can# 21006

Operator: ts

Column phase: RTX-624

Column diameter: 0.32



0491

SCOEPAA00032163

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

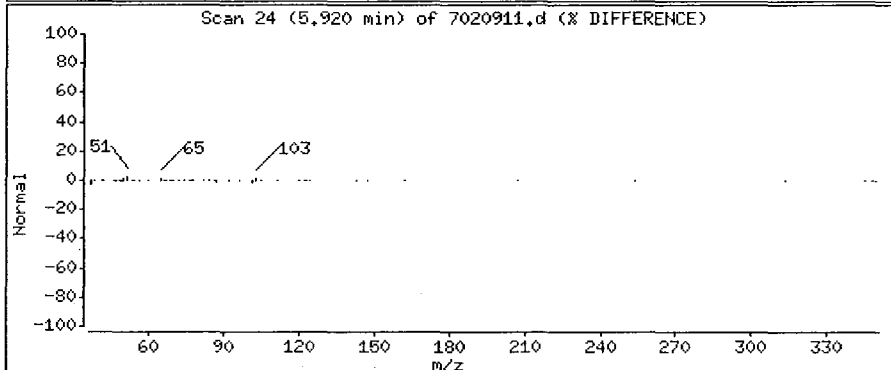
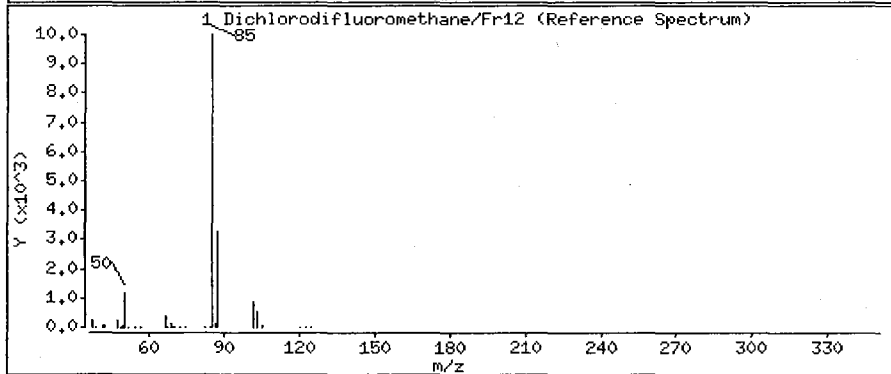
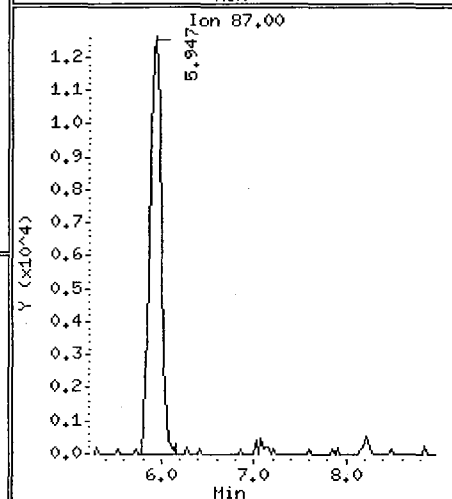
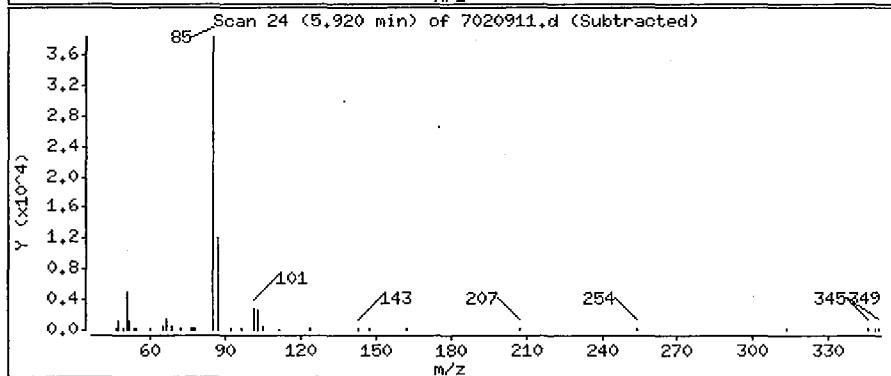
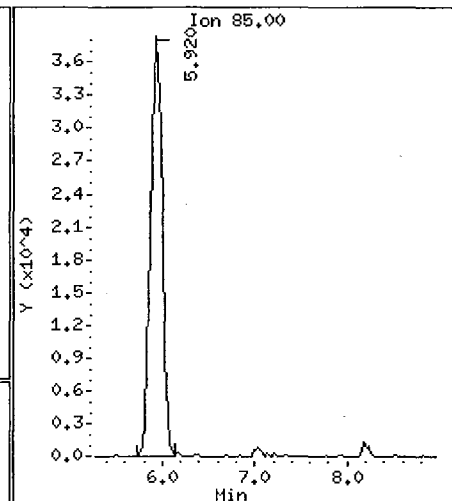
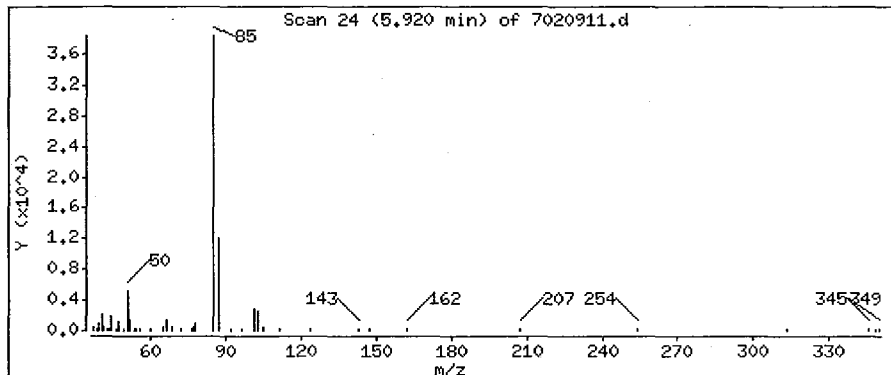
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 1.178 PPBV



0492

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

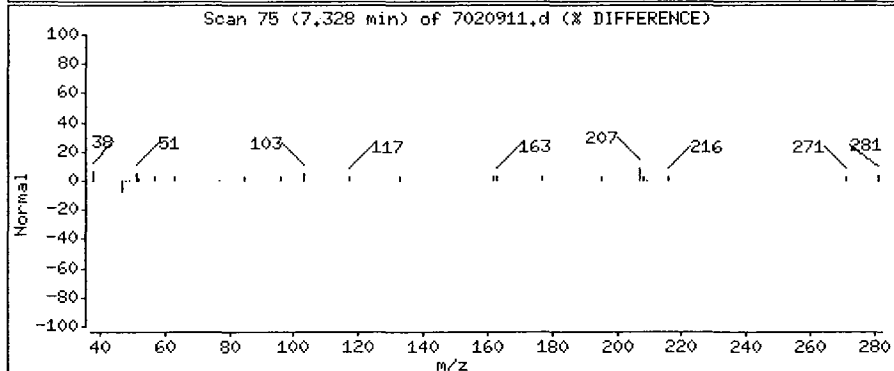
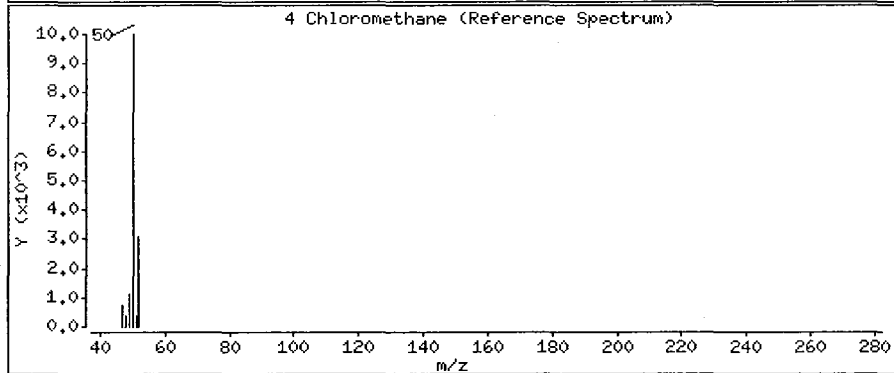
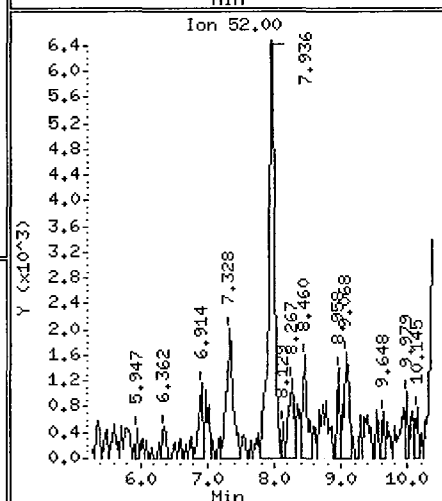
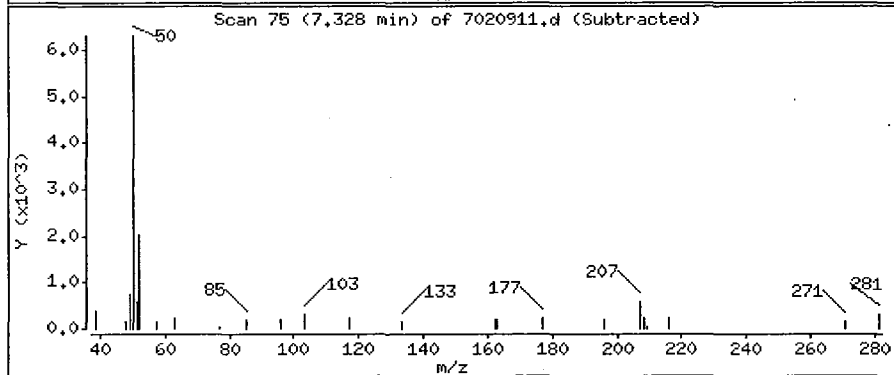
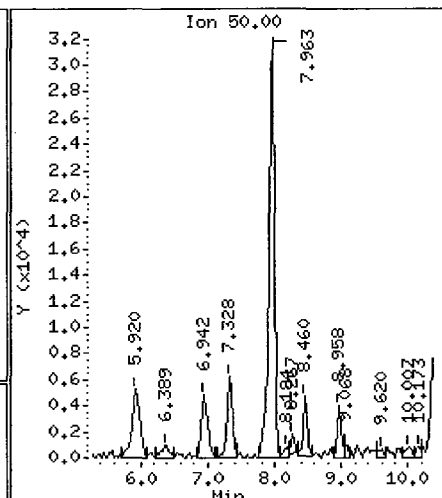
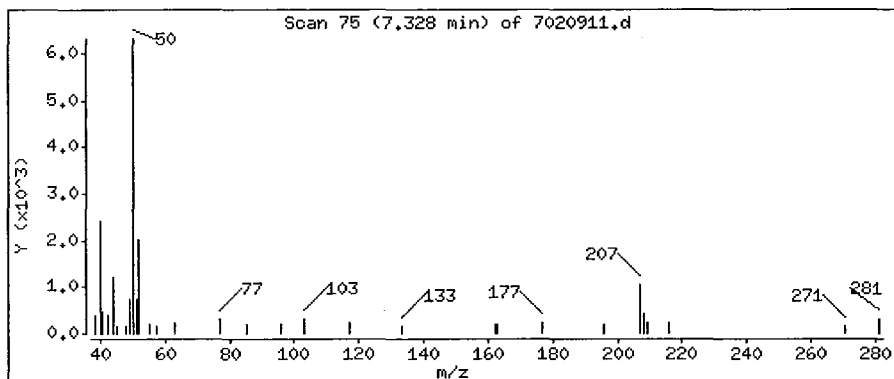
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4390 PPBV



0493

Data File: /chem/msd7.i/7-09feb.b/7020911.d

Page 4

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

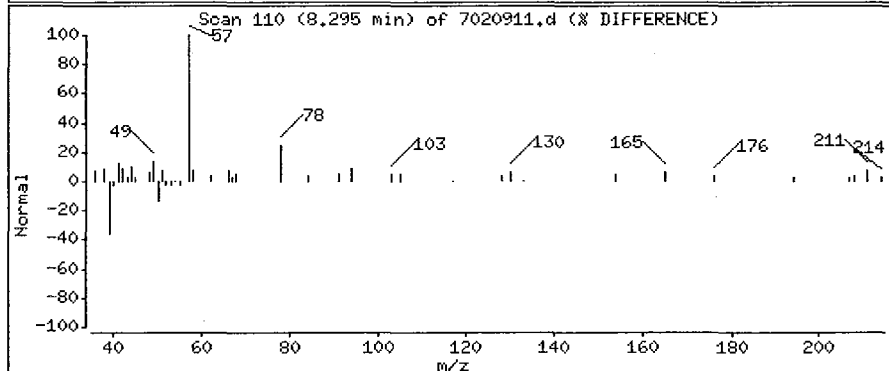
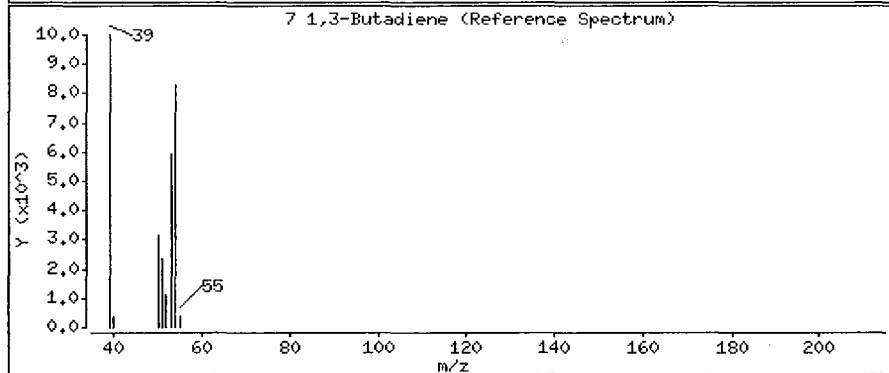
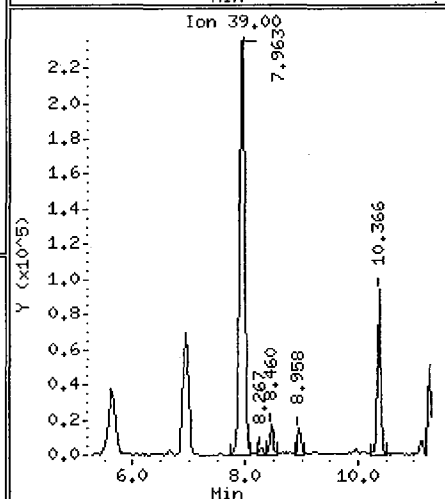
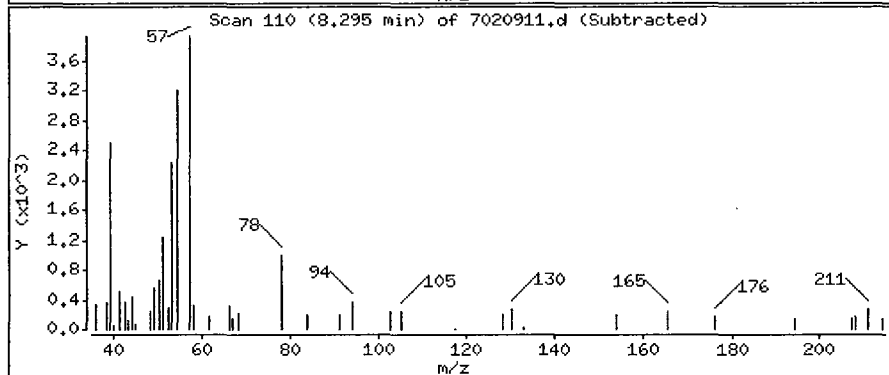
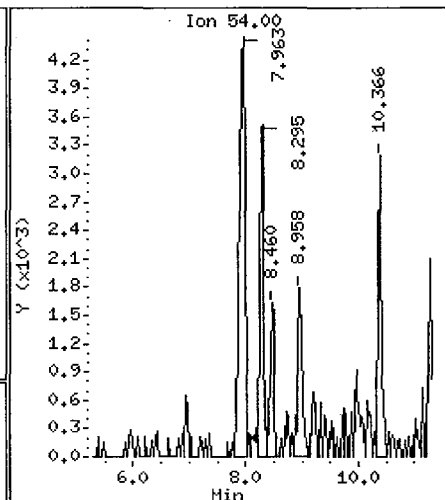
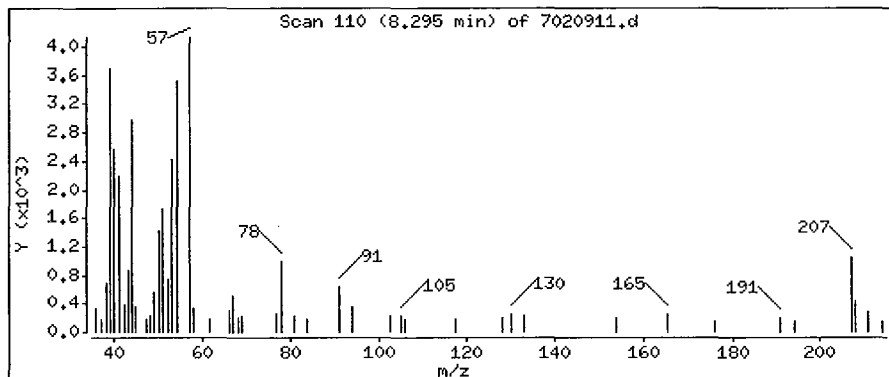
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.2332 PPBV



0494

SCOEPAA00032166

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

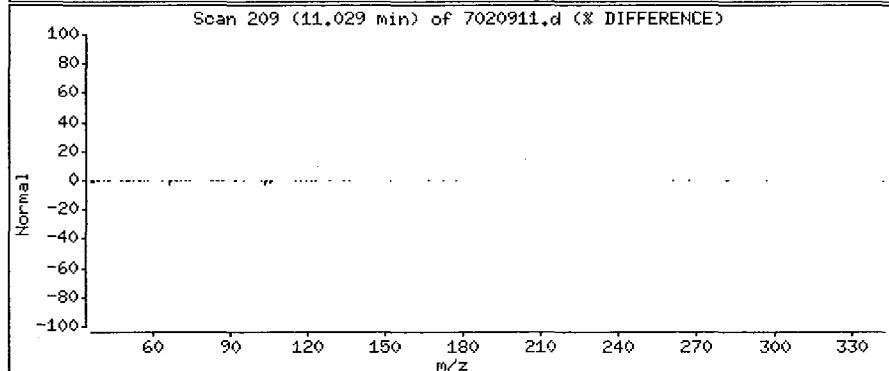
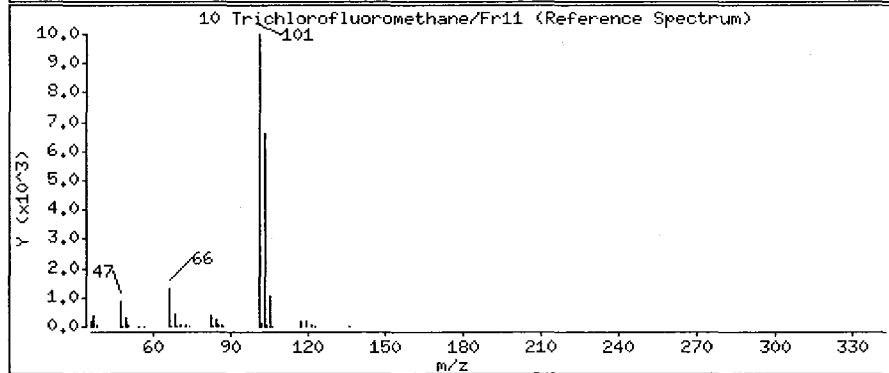
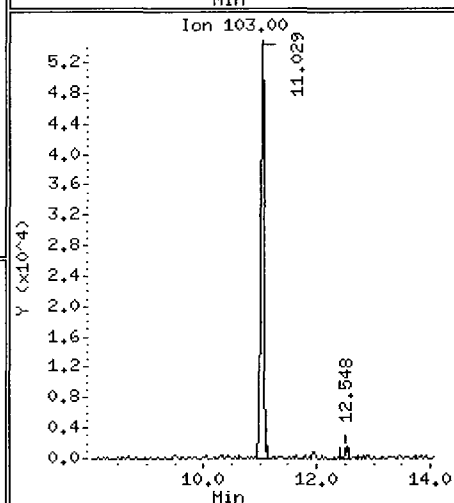
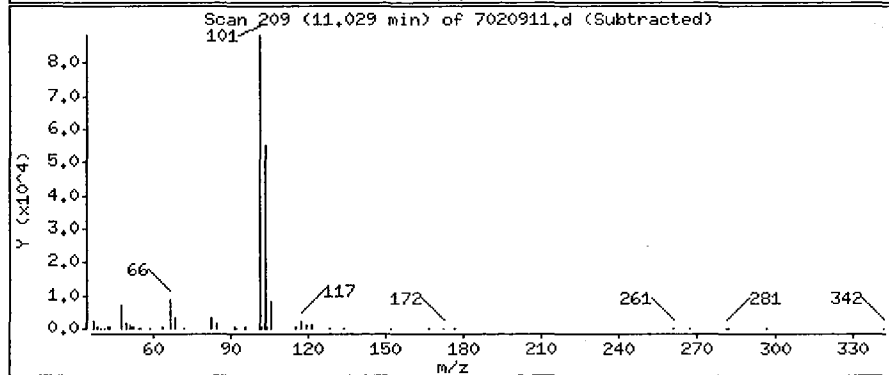
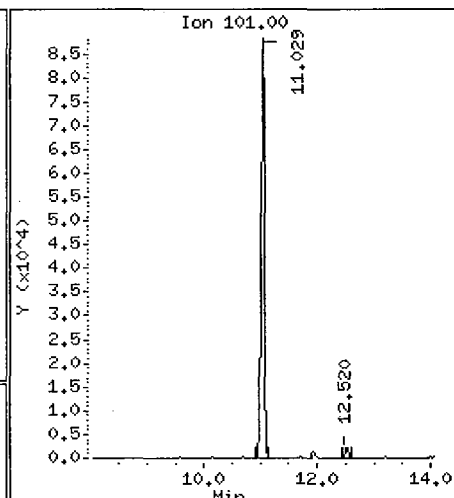
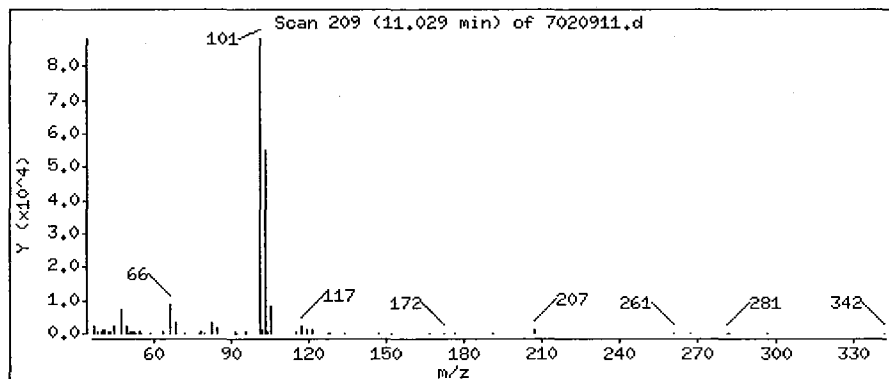
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 1.501 PPBV



0495

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

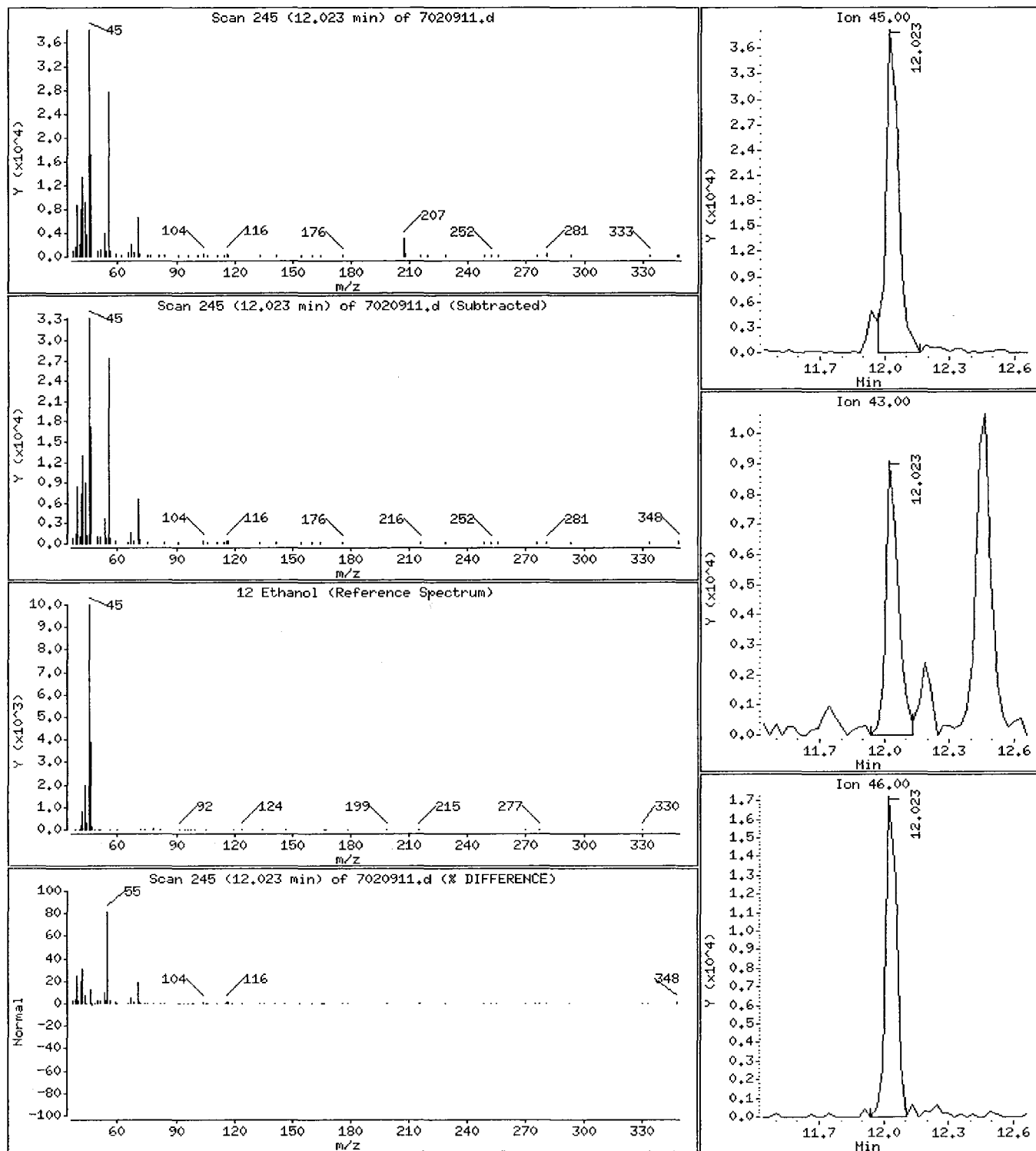
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 4.417 PPBV



0496

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

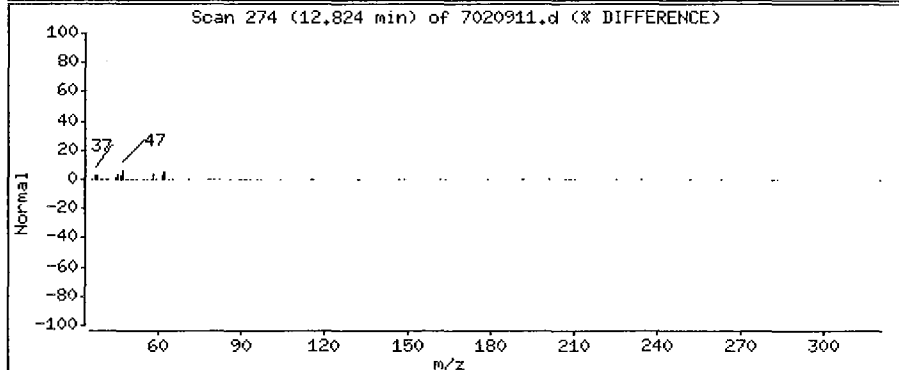
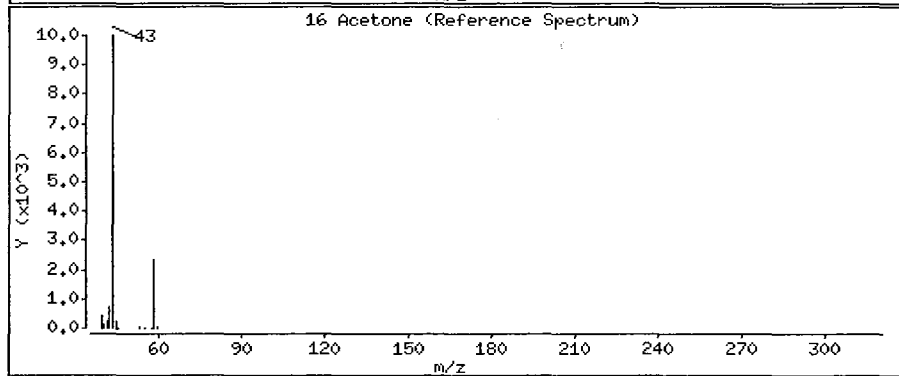
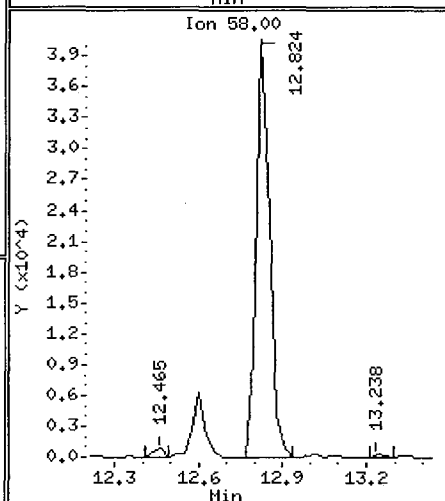
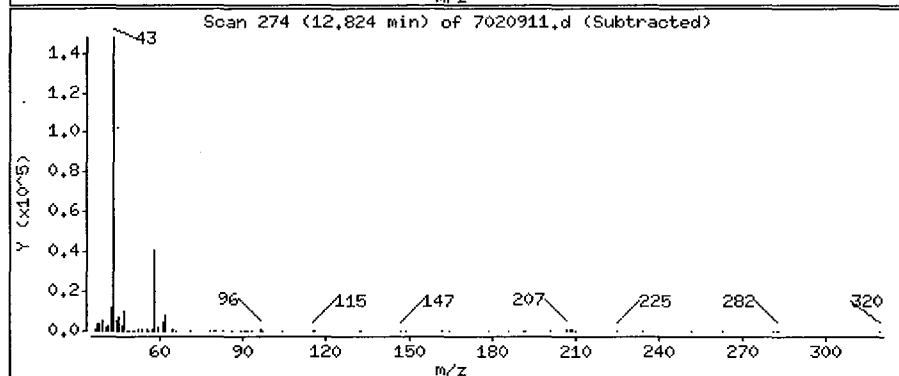
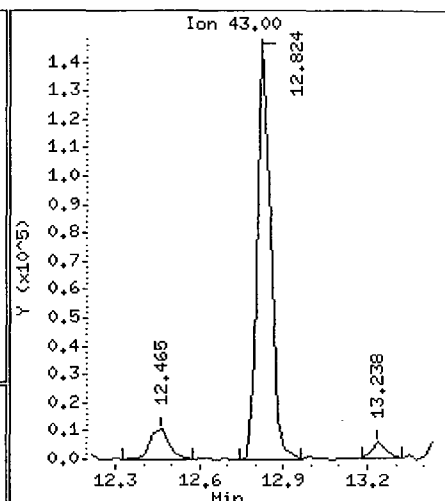
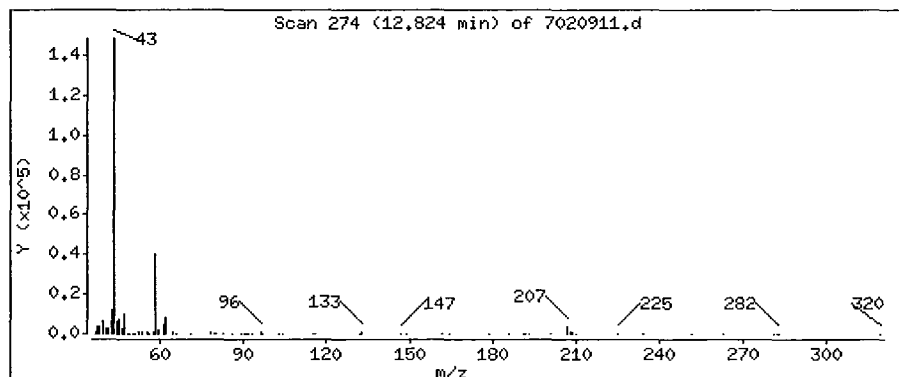
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 2,574 PPBV



0497

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

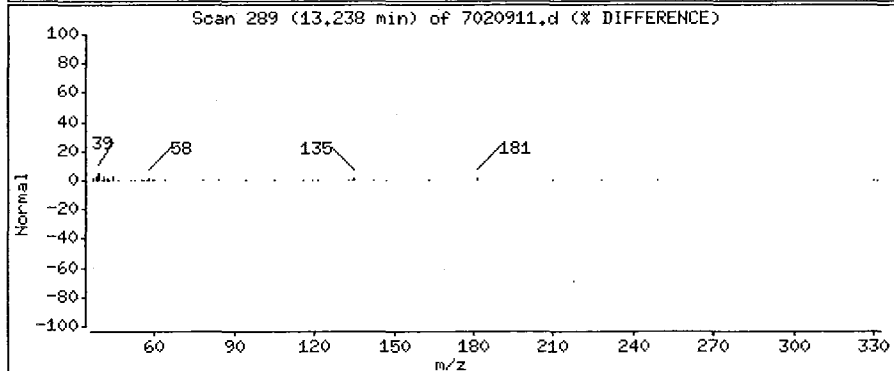
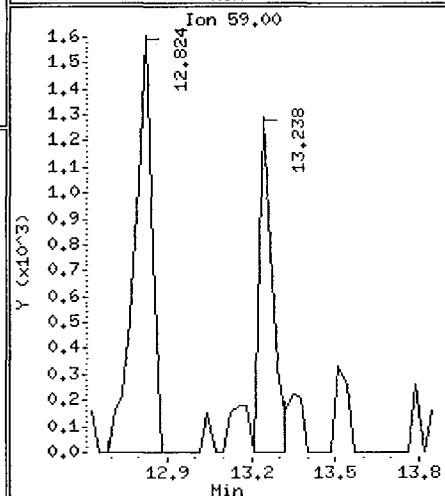
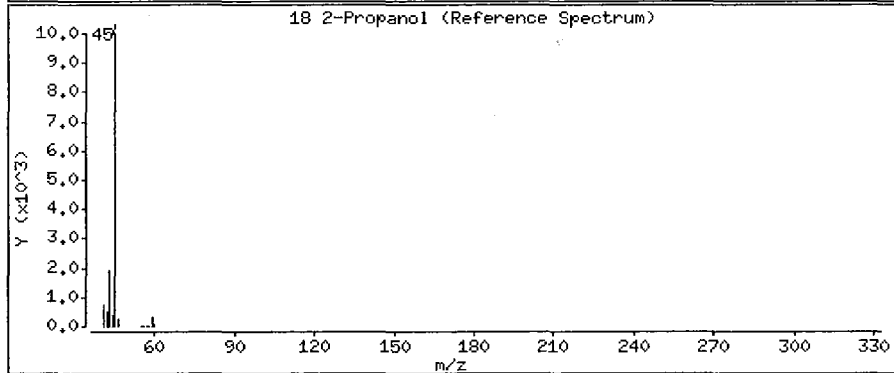
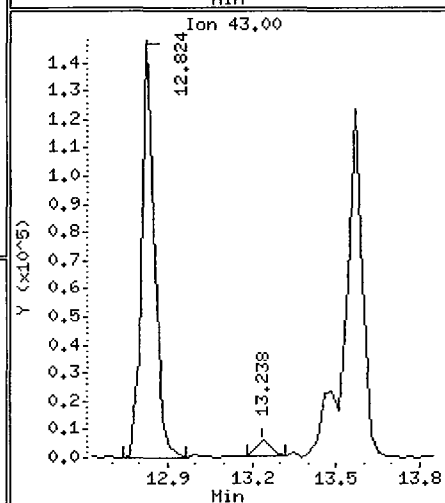
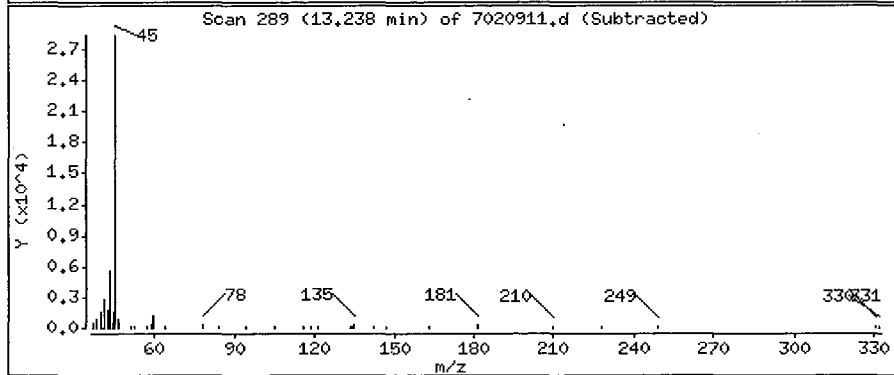
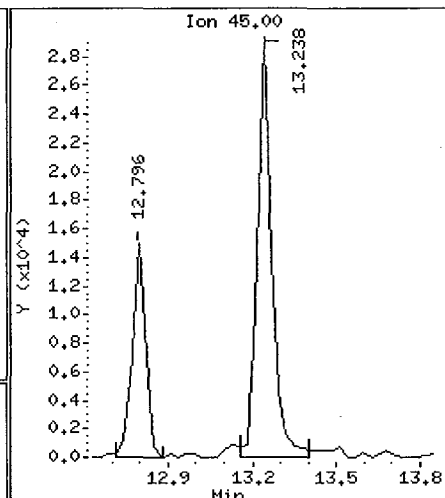
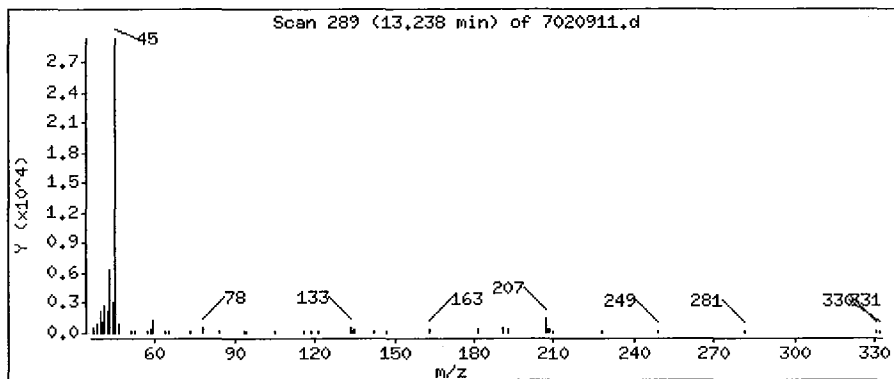
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 0.6035 PPBV



0498

Data File: /chem/msd7.i/7-09feb.b/7020911.d

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Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

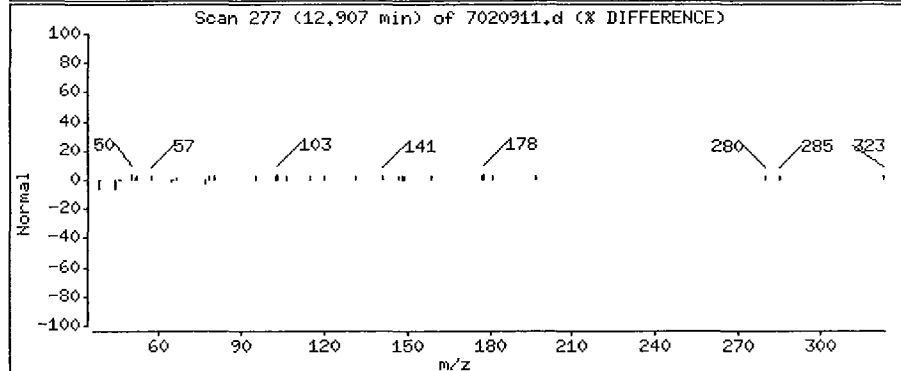
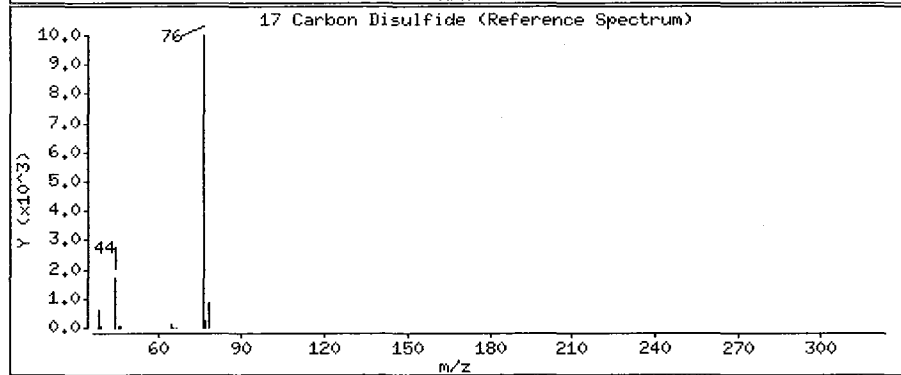
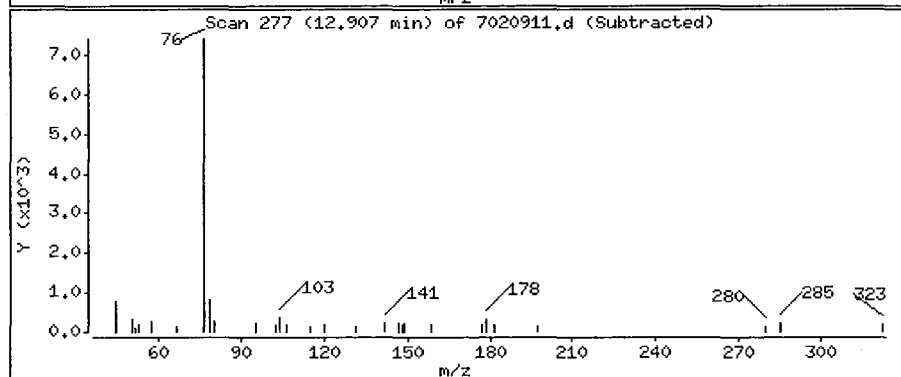
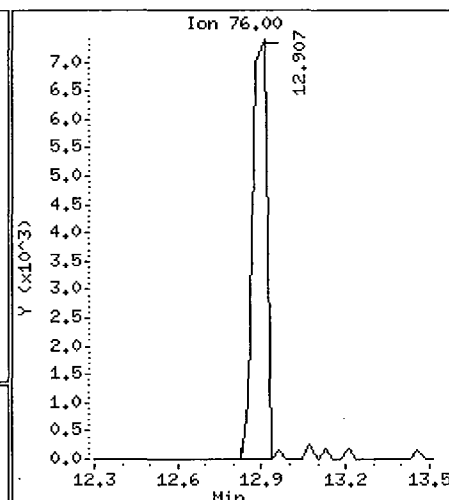
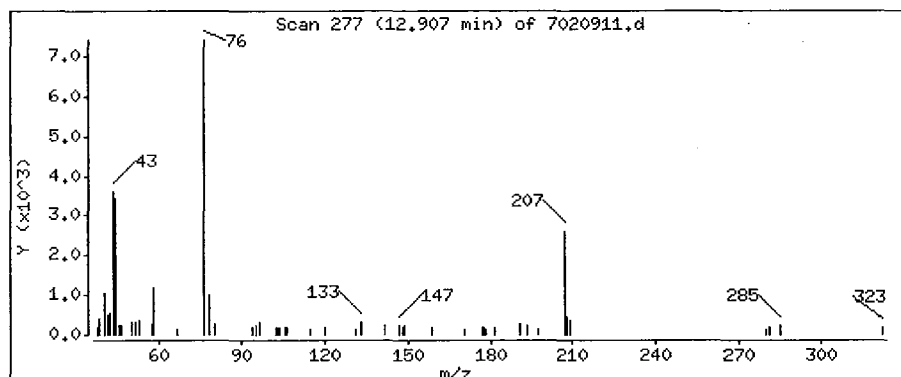
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.1111 PPBV



0499

SCOEP00032171

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

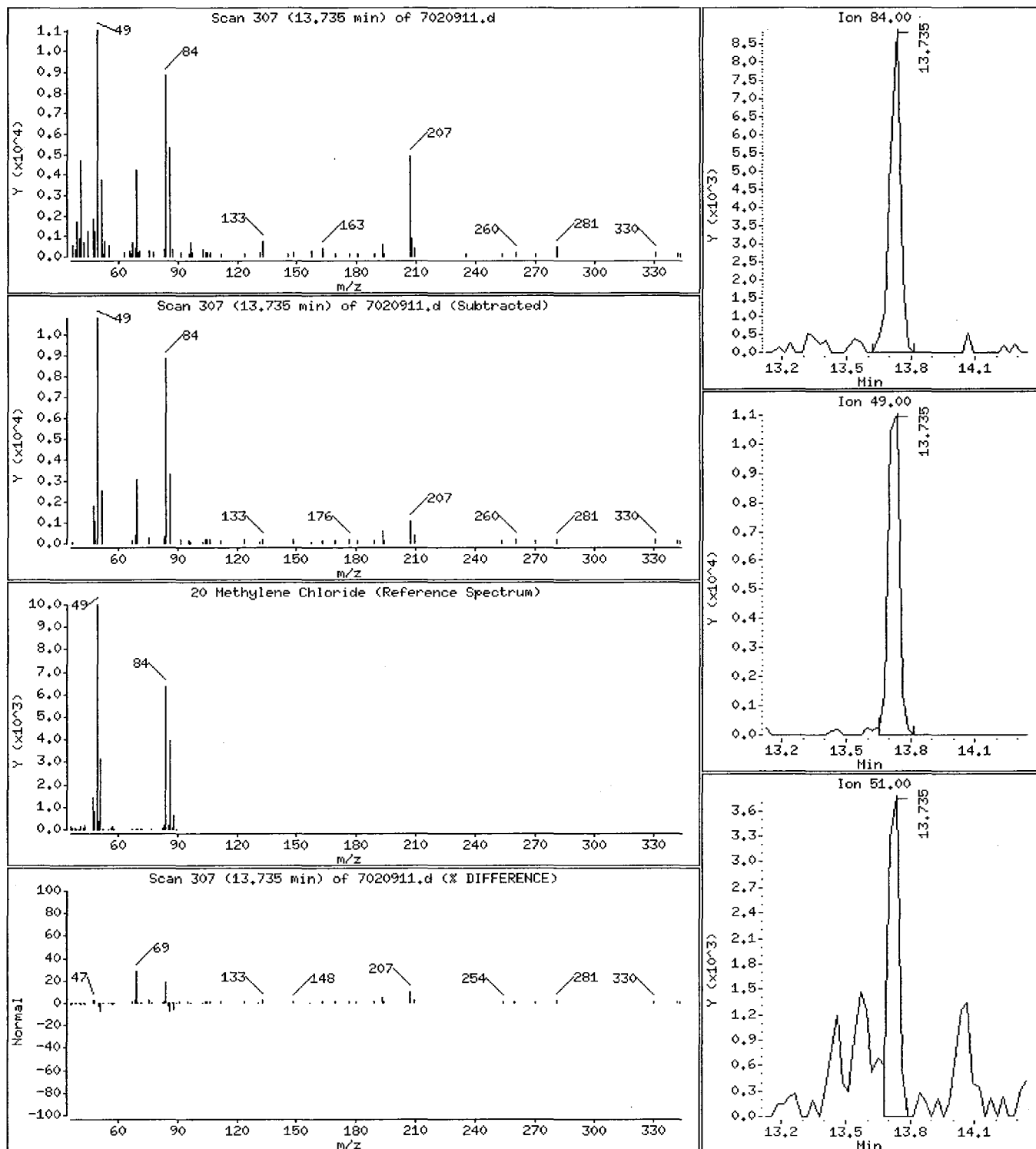
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.4140 PPBV



0500

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

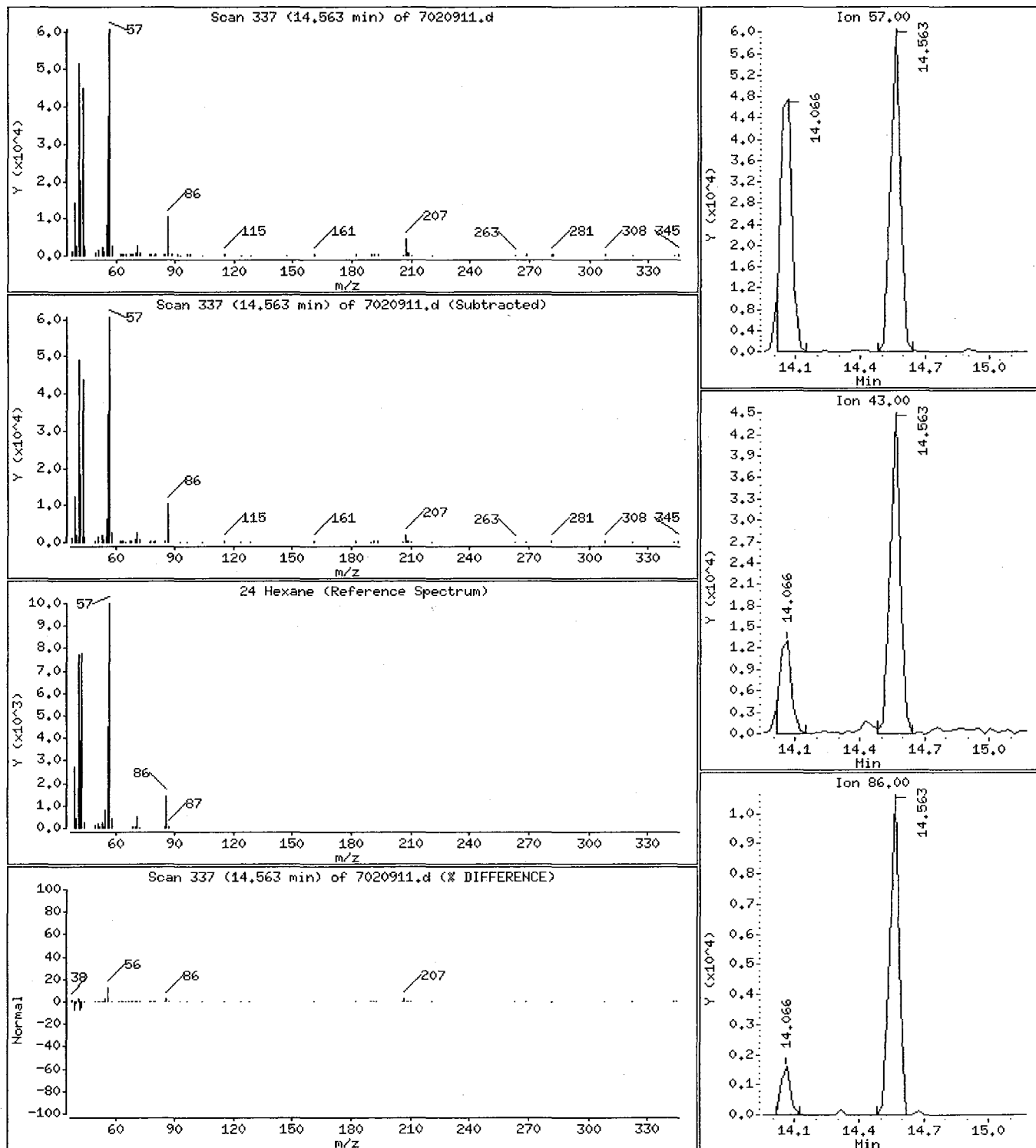
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

24 Hexane

Concentration: 1.361 PPBV



0501

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

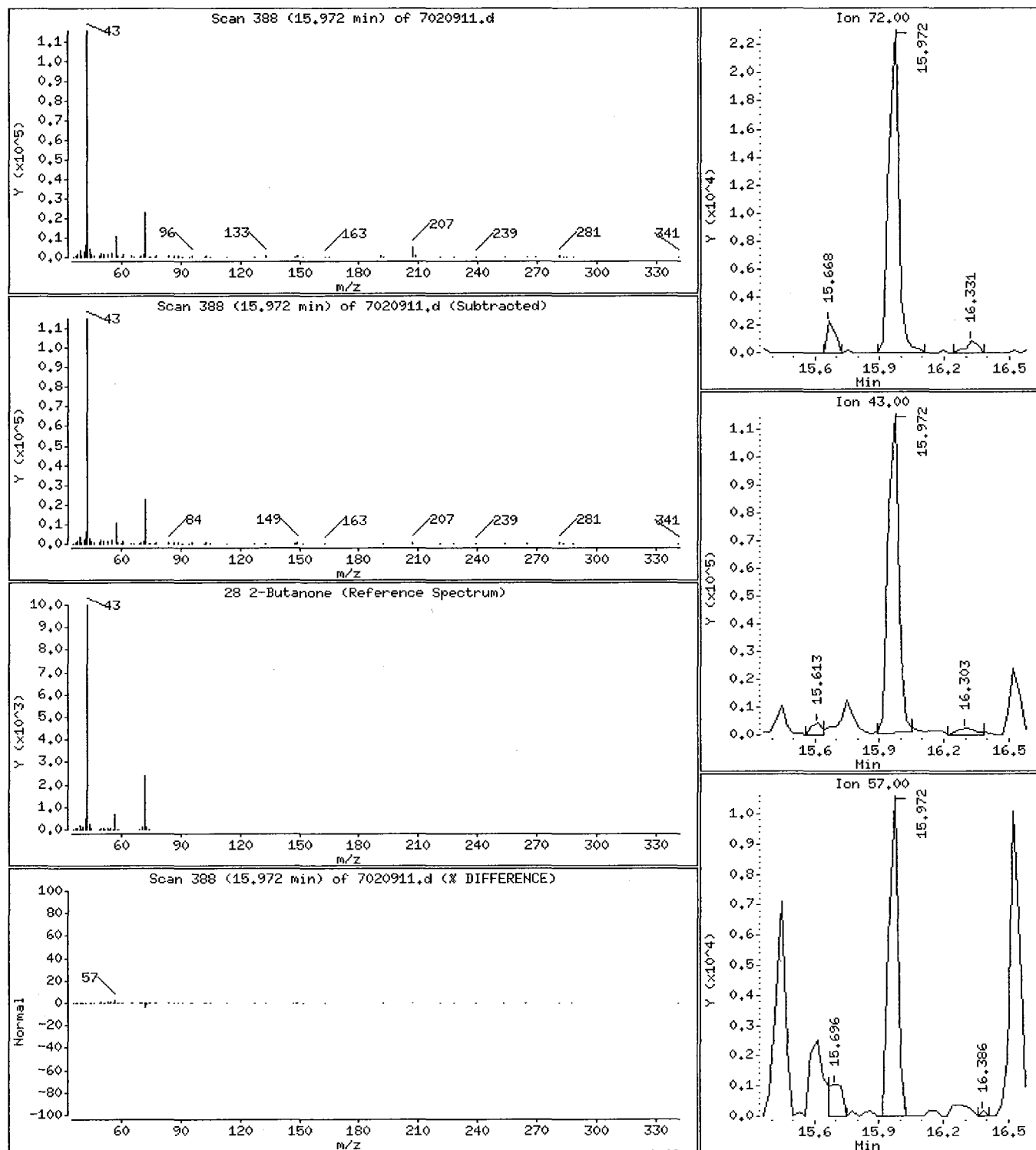
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 1.901 PPBV



0502

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

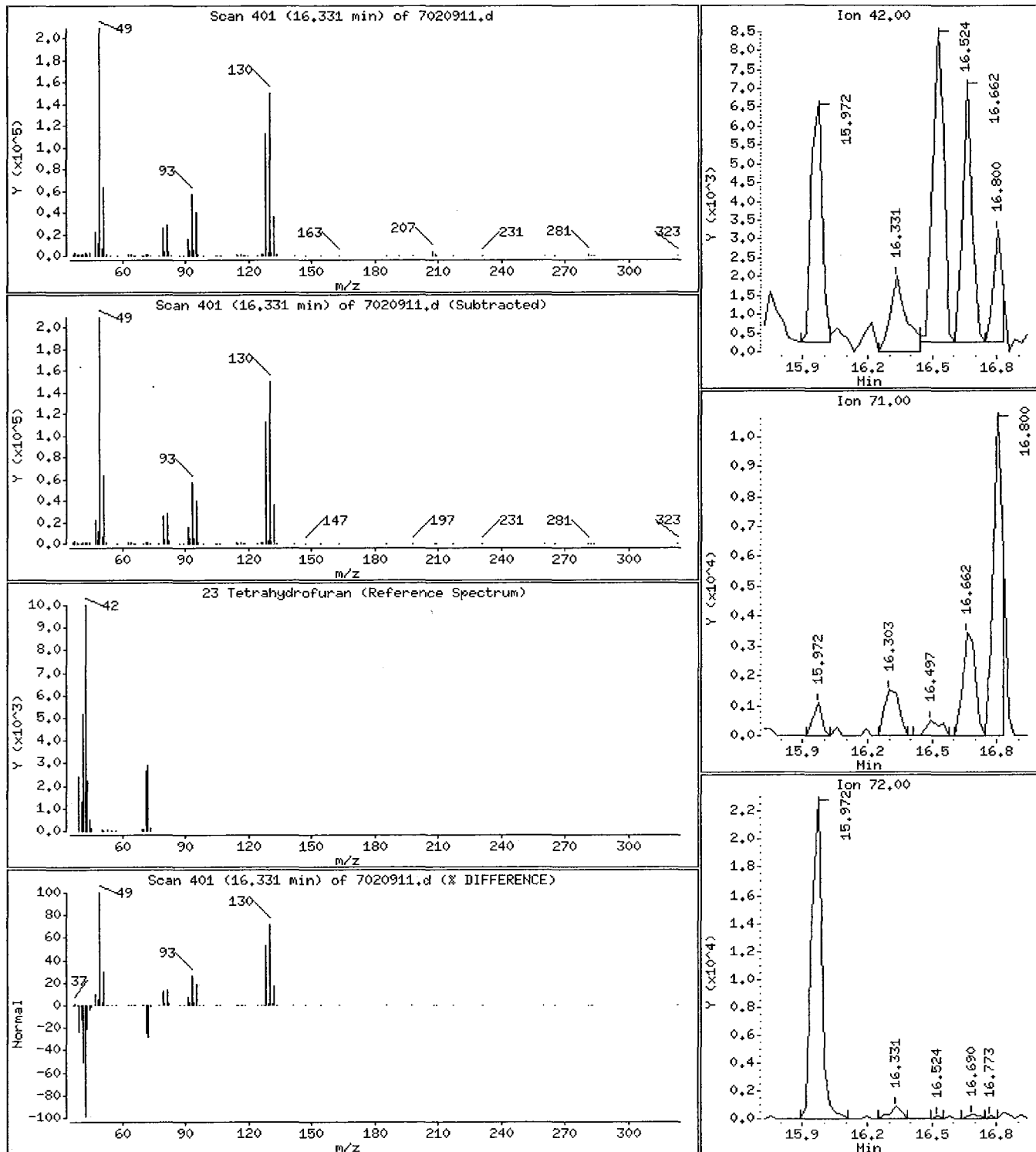
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.09827 PPBV



0503

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

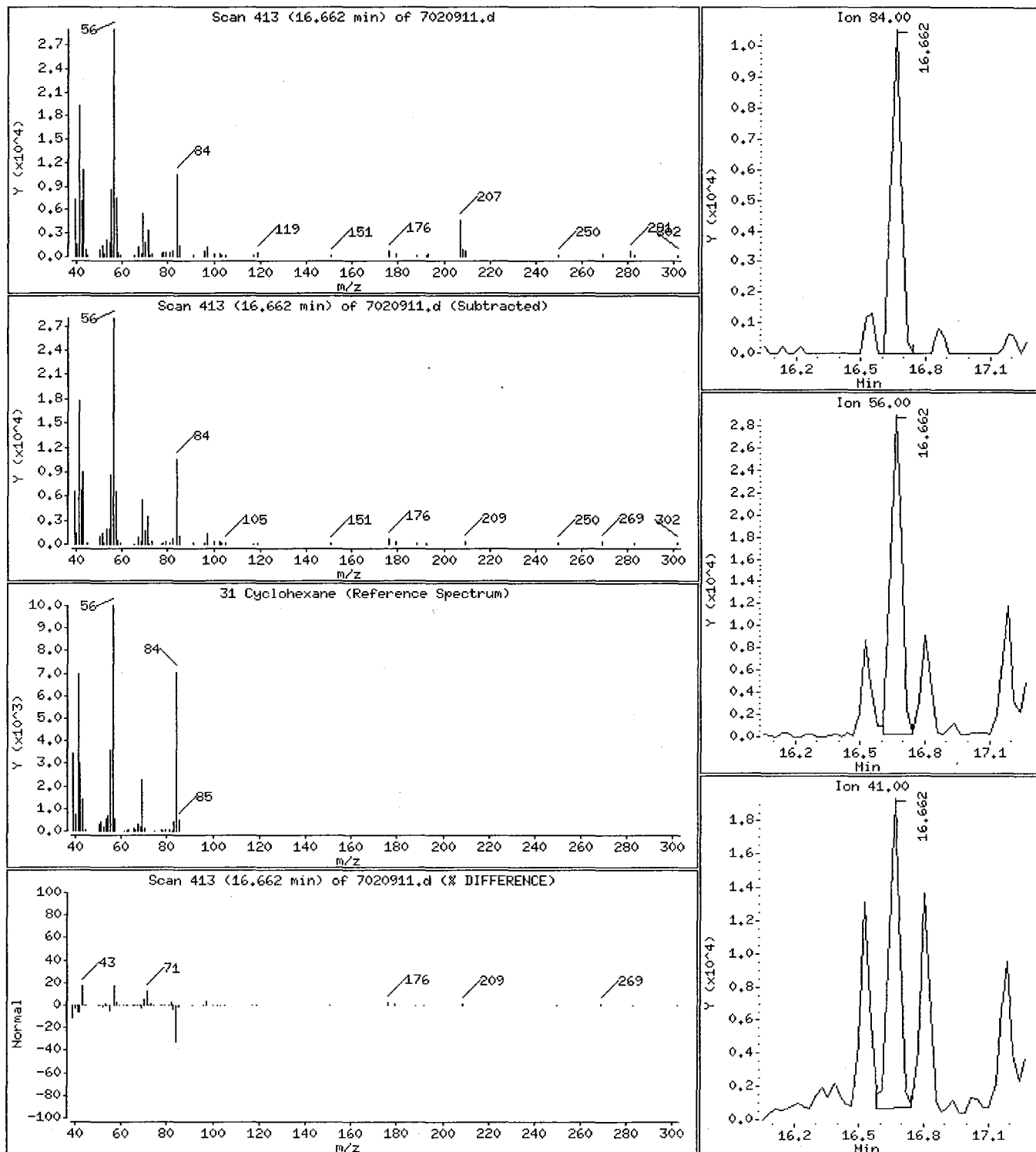
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.4465 PPBV



0504

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

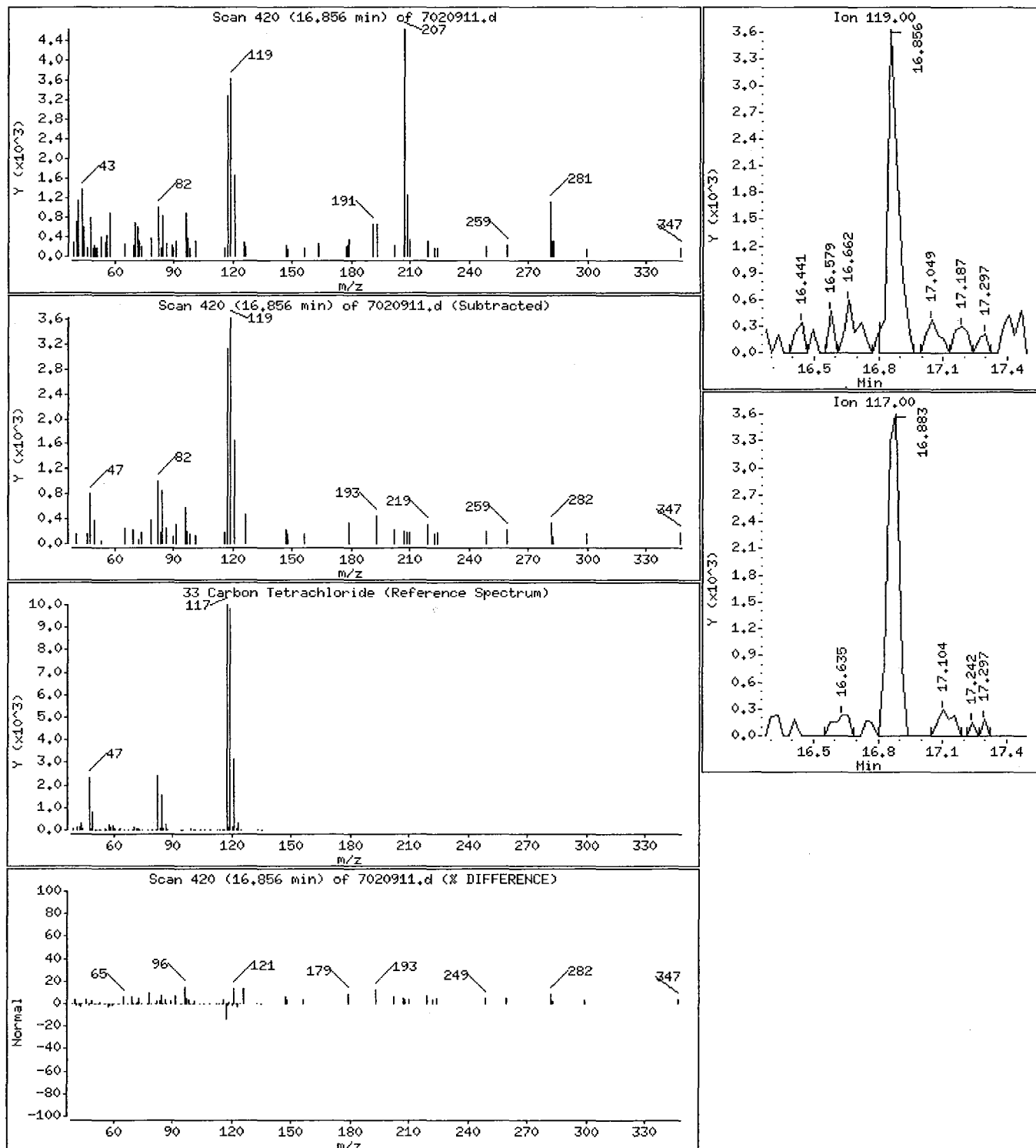
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.1008 PPBV



0505

Data File: /chem/msd7.i/7-09feb.b/7020911.d

Page 16

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

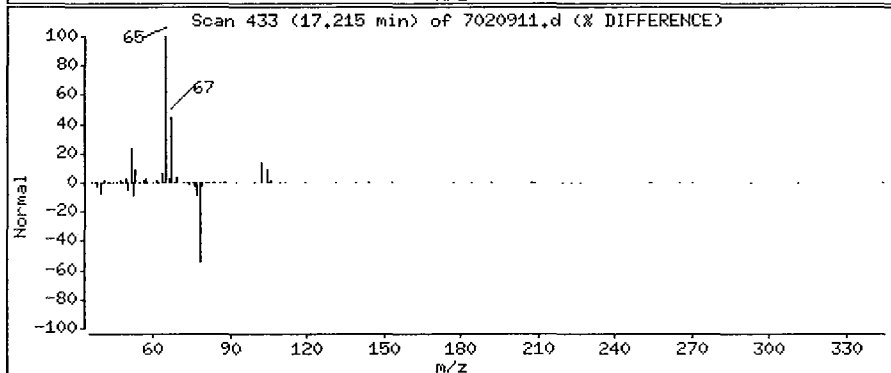
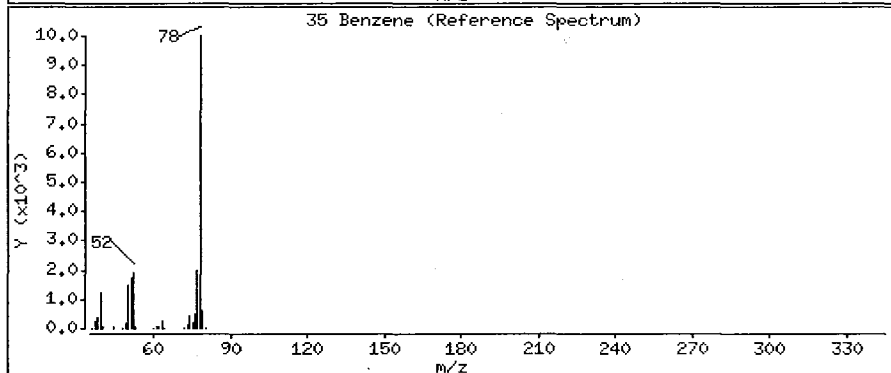
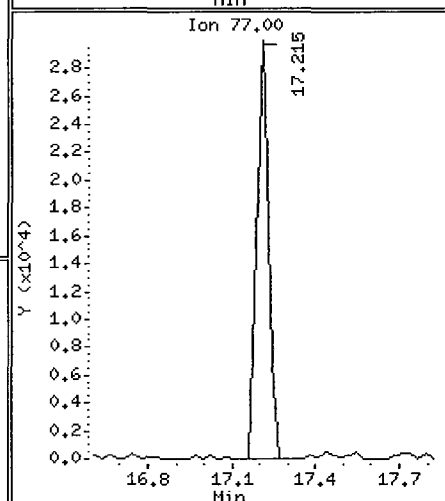
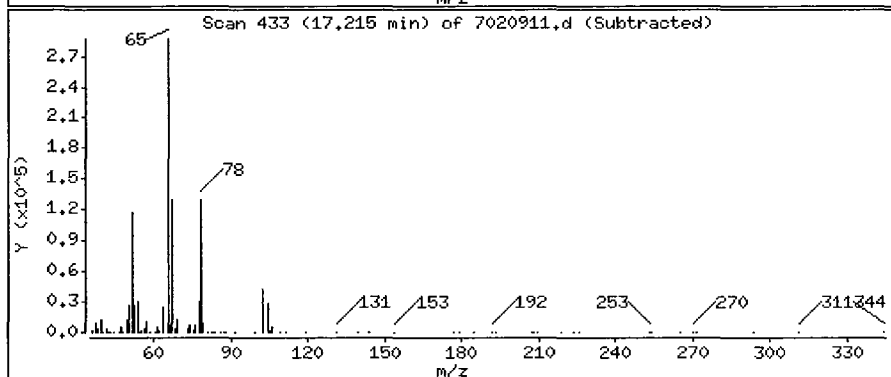
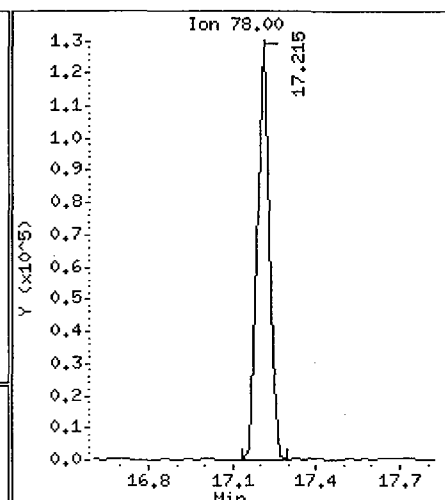
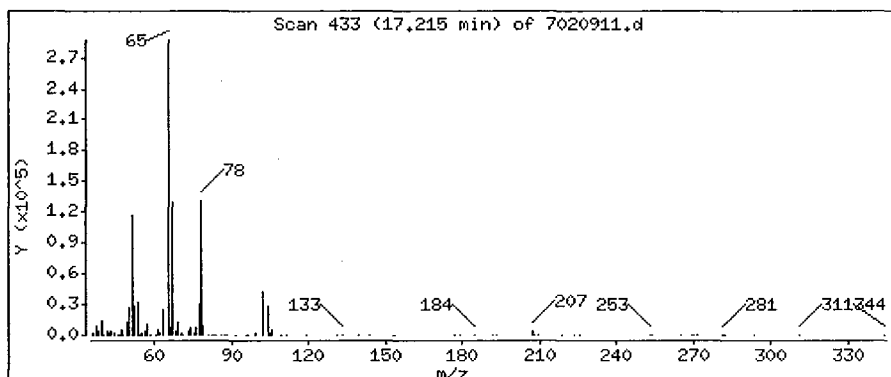
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 1,639 PPBV



0506

SCOEPAA00032178

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

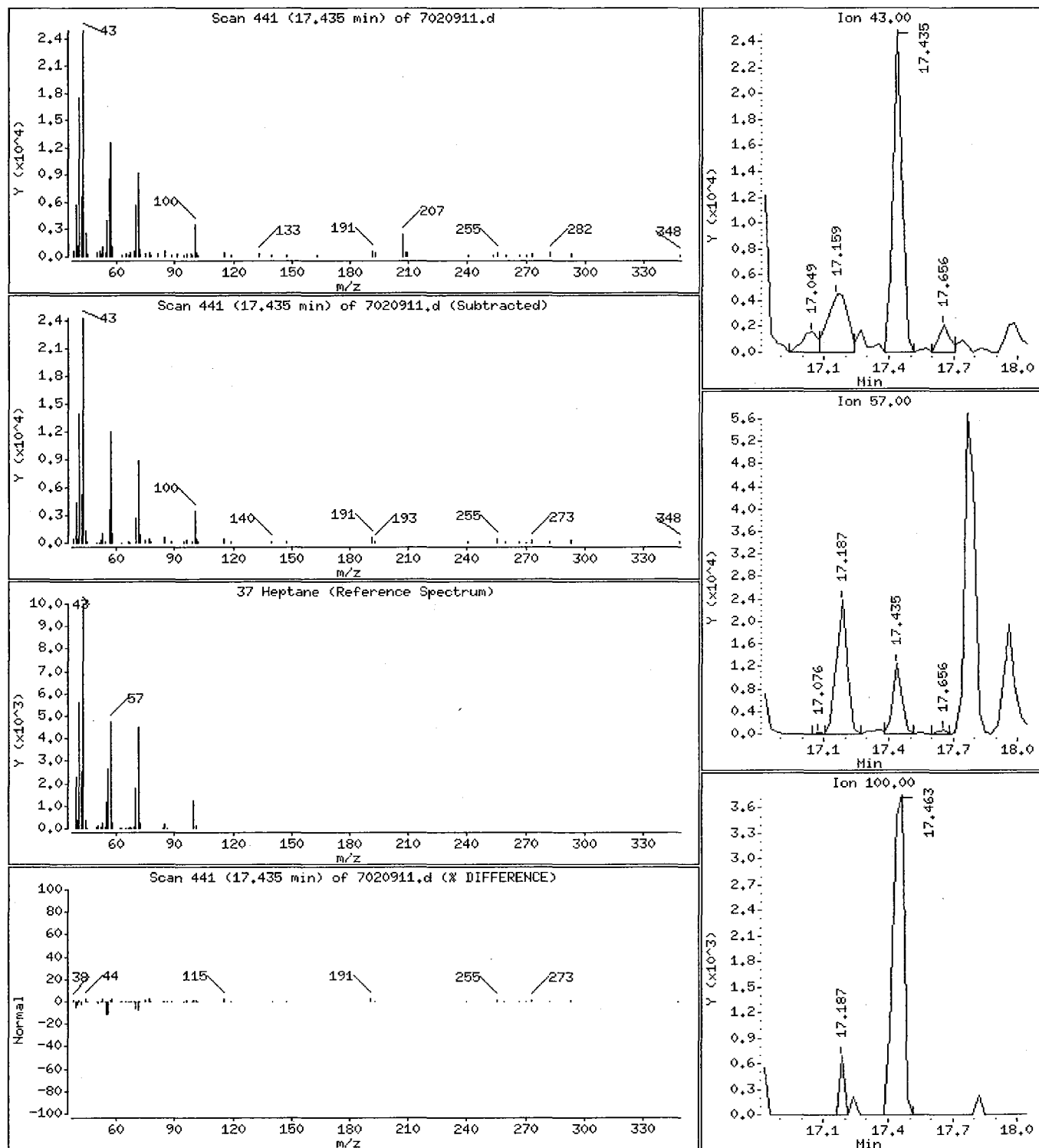
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

37 Heptane

Concentration: 0.5304 PPBV



0507

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

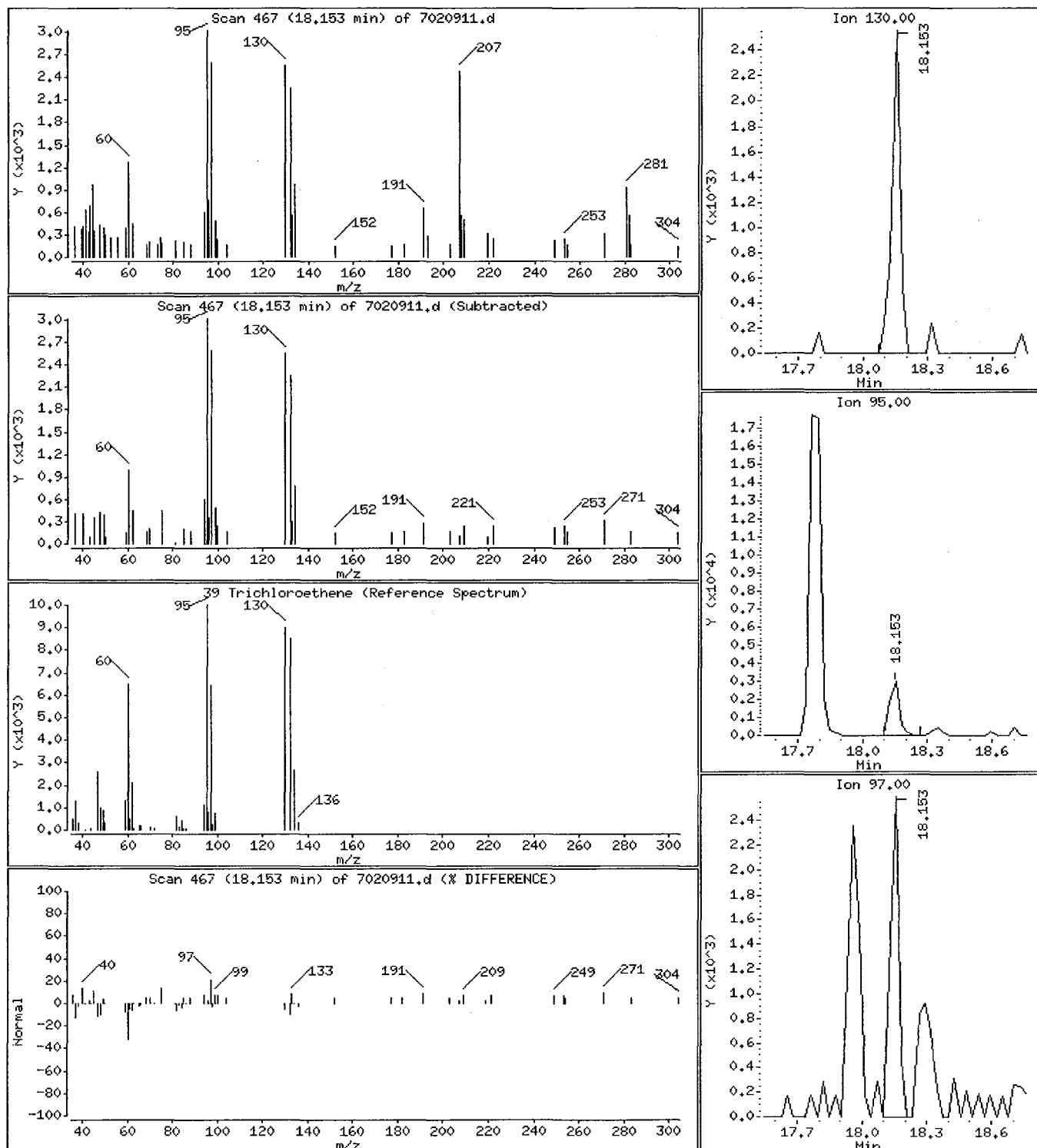
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

39 Trichloroethene

Concentration: 0.08294 PPBV



0508

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

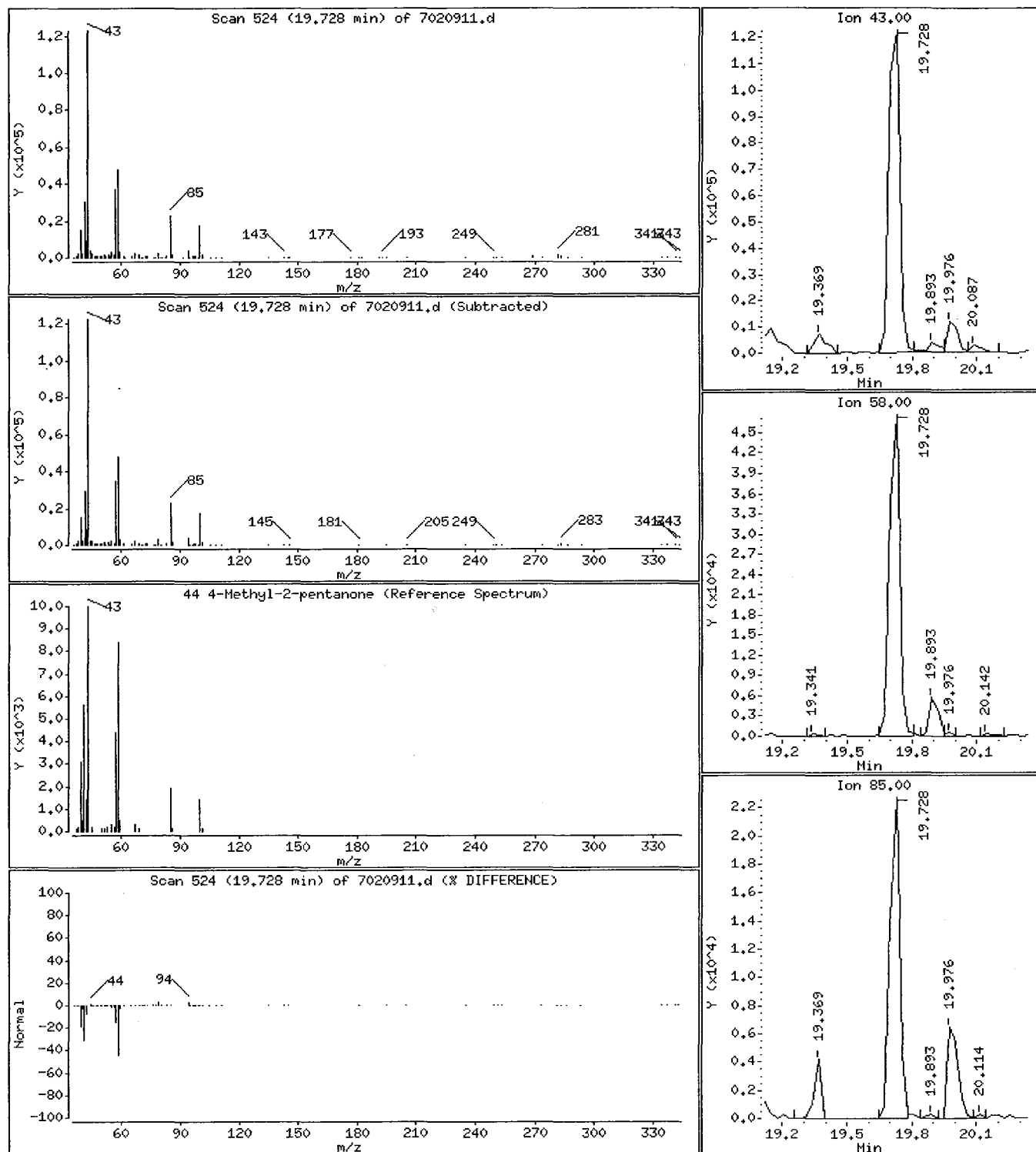
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 2,806 PPBV



0509

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

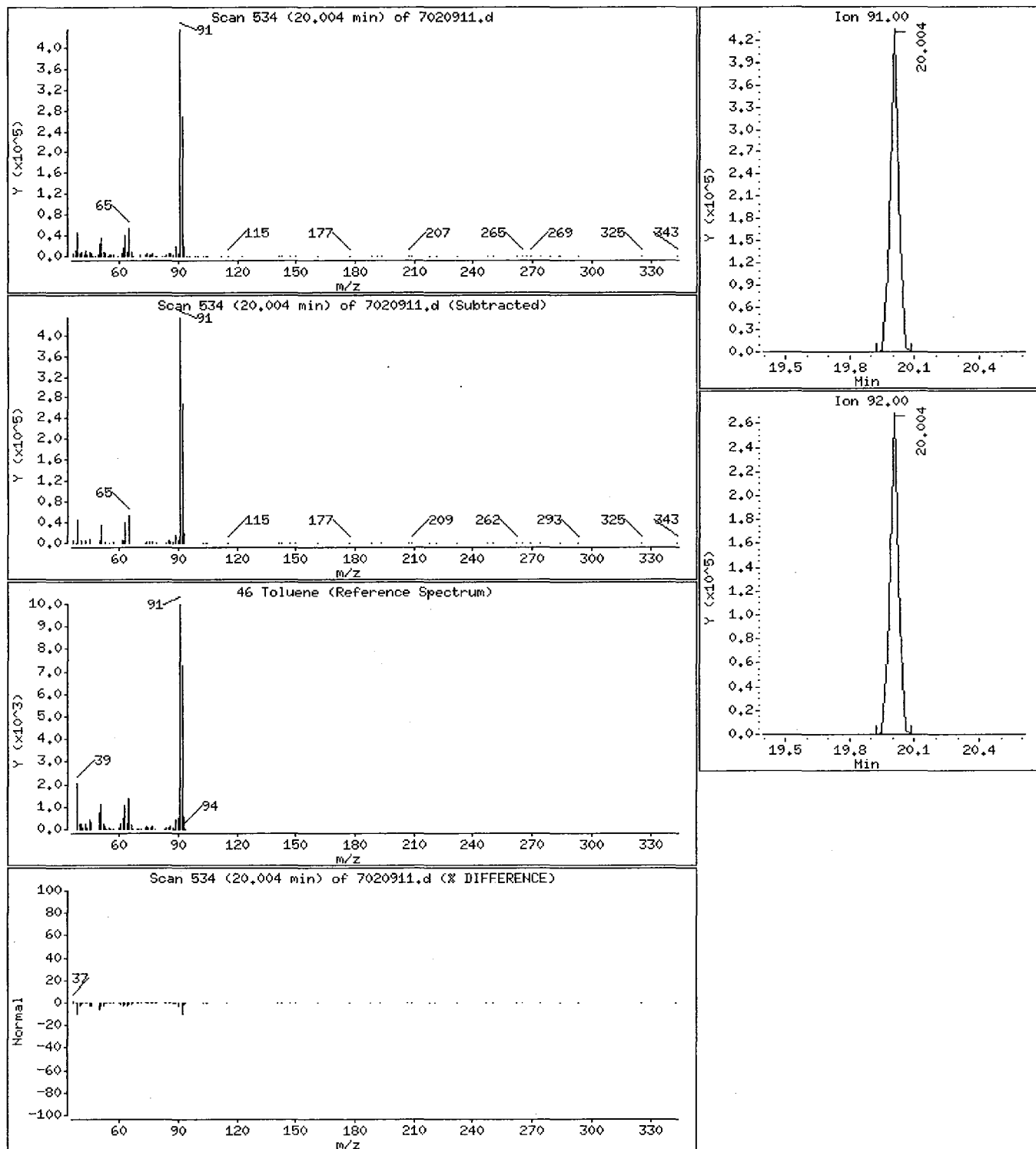
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 4,320 PPBV



0510

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

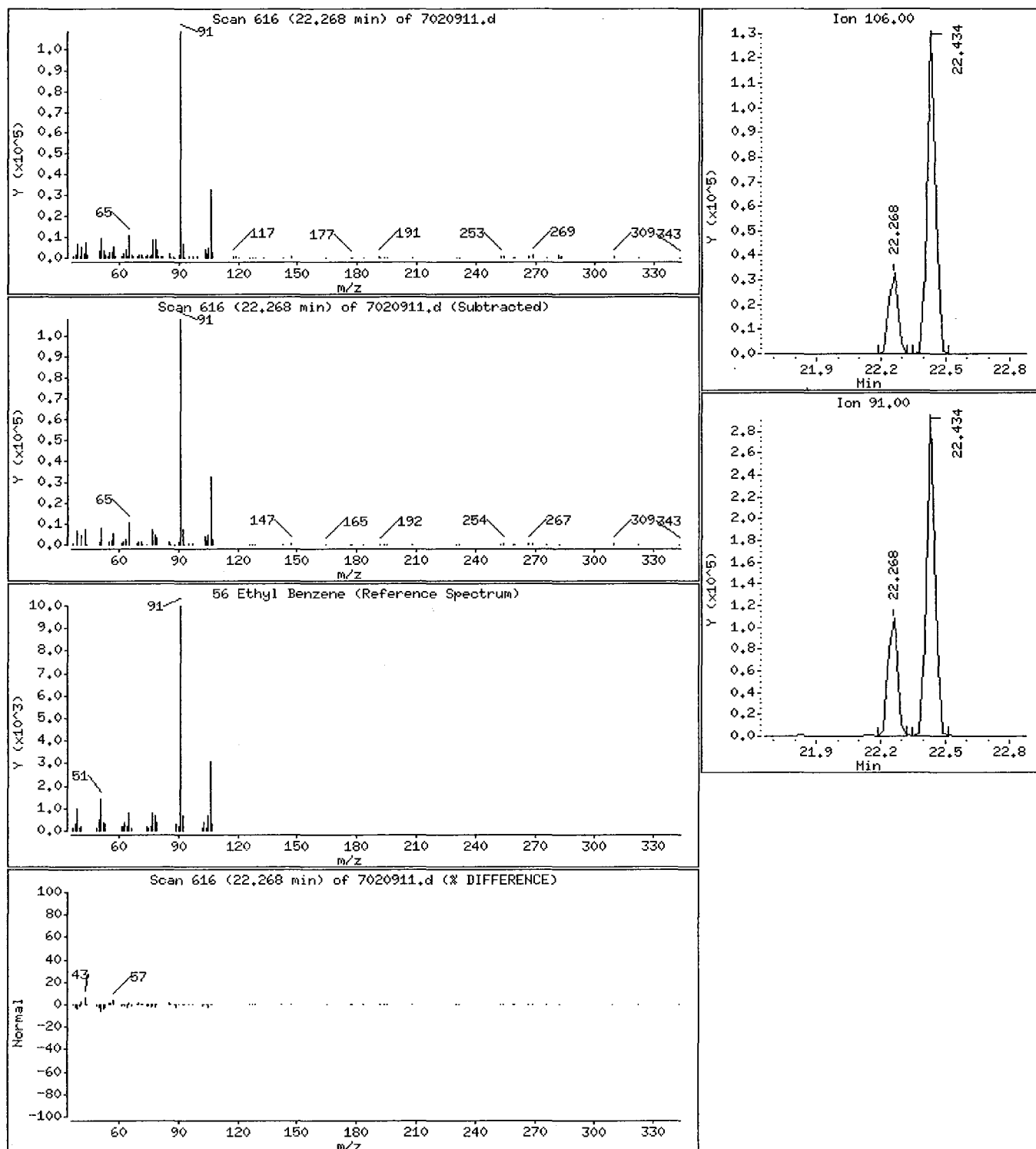
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 1,062 PPBV



0511

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

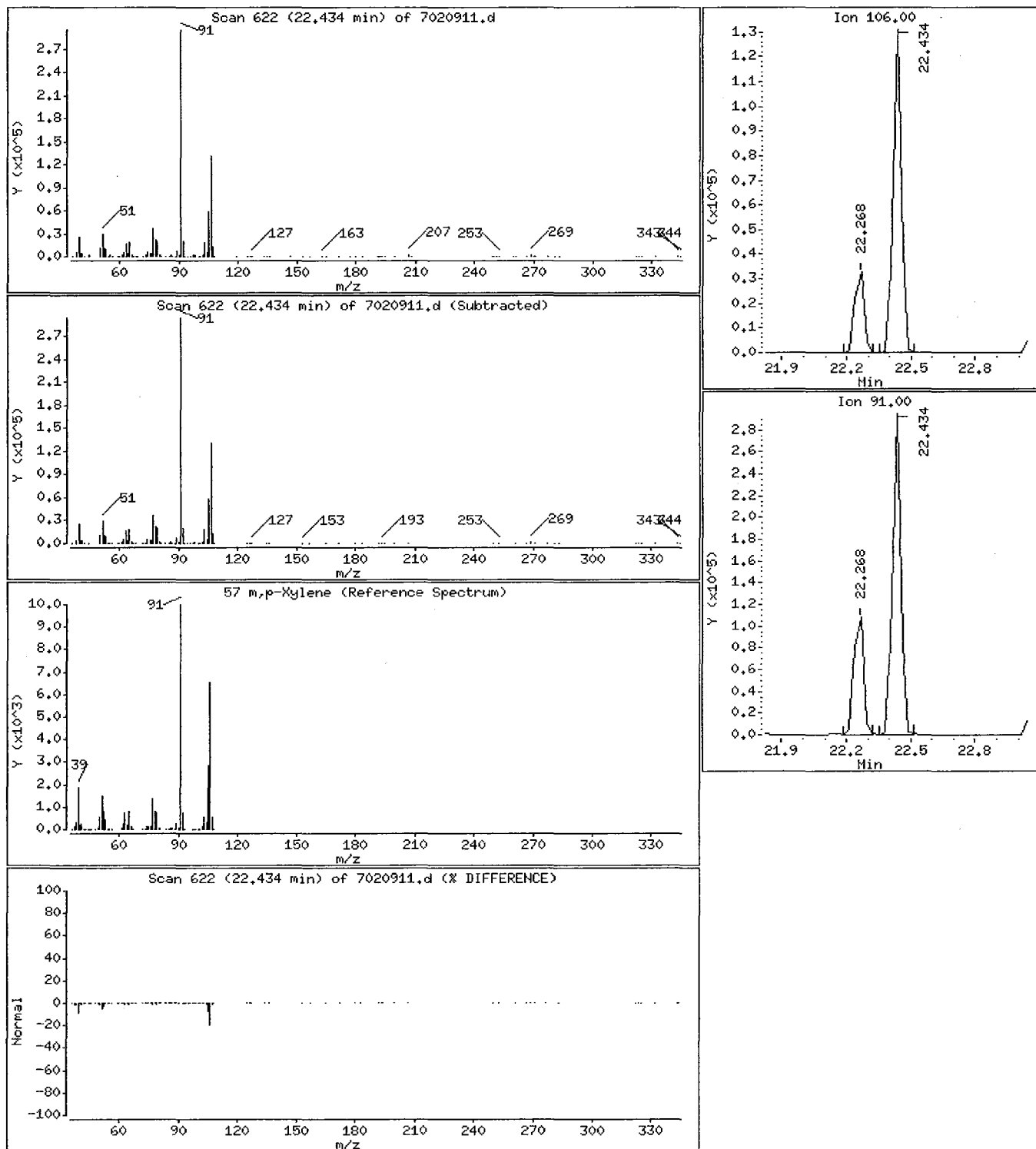
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 3.043 PPBV



0512

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

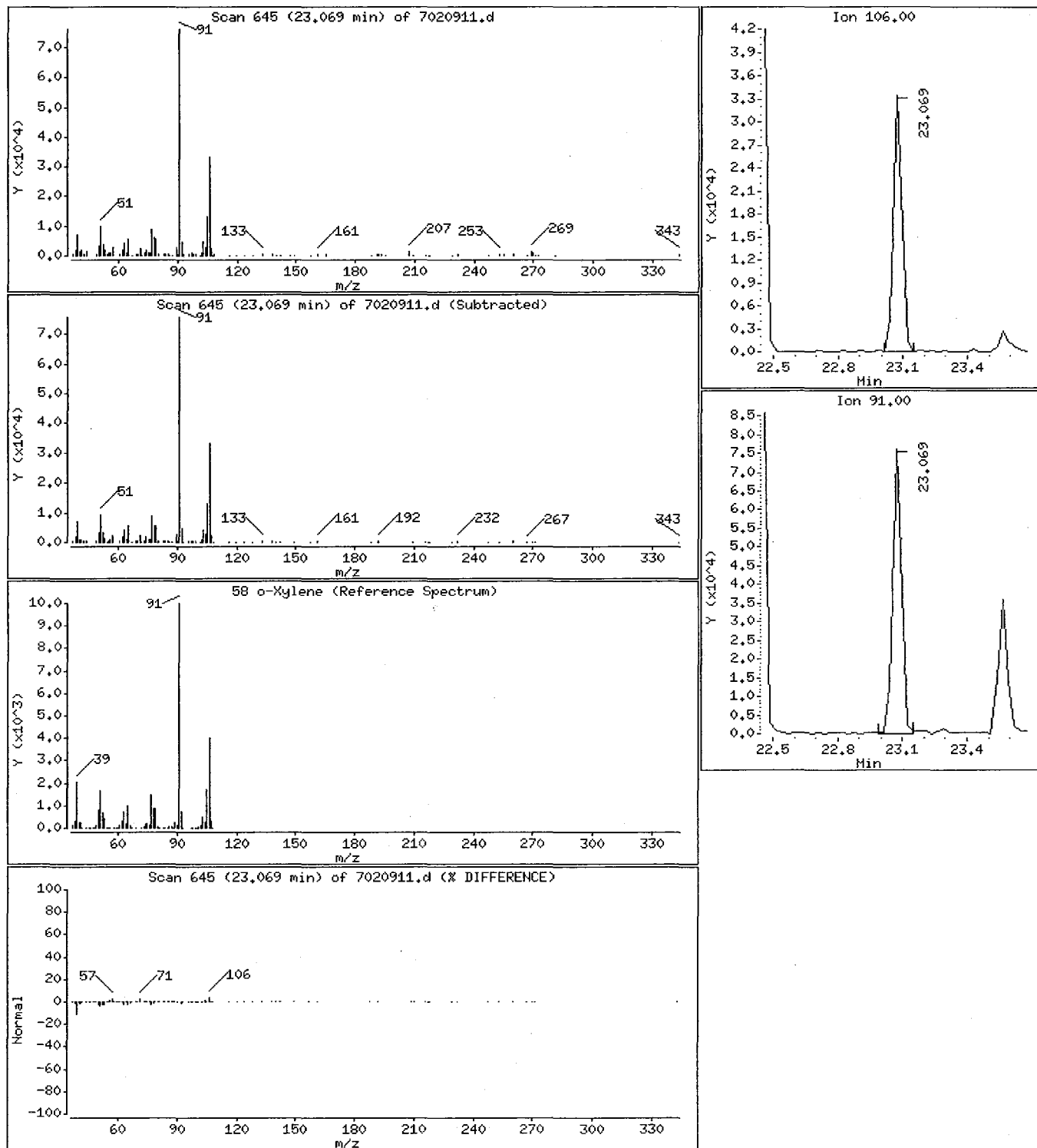
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.9895 PPBV



0513

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

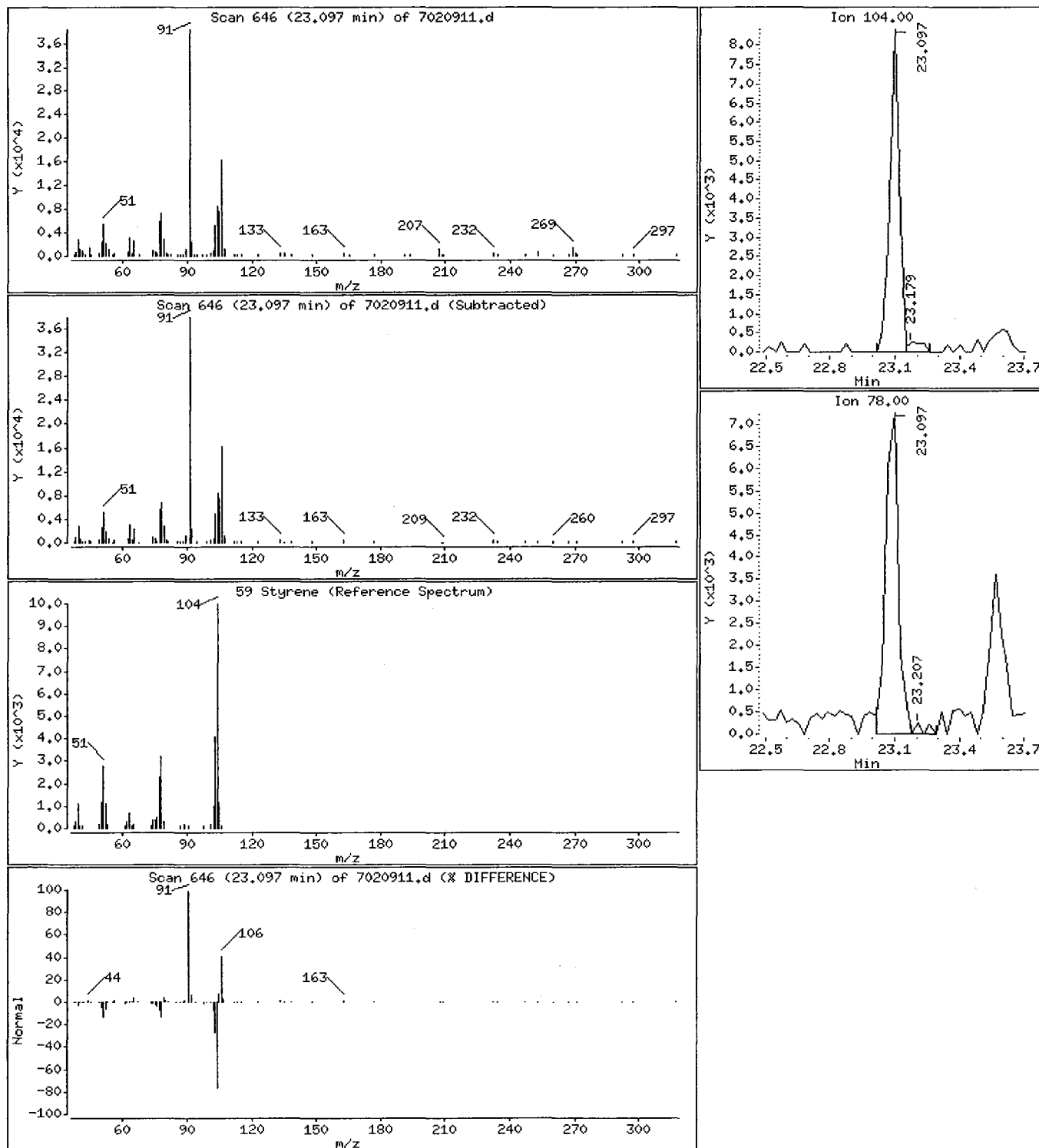
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.1779 PPBV



0514

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

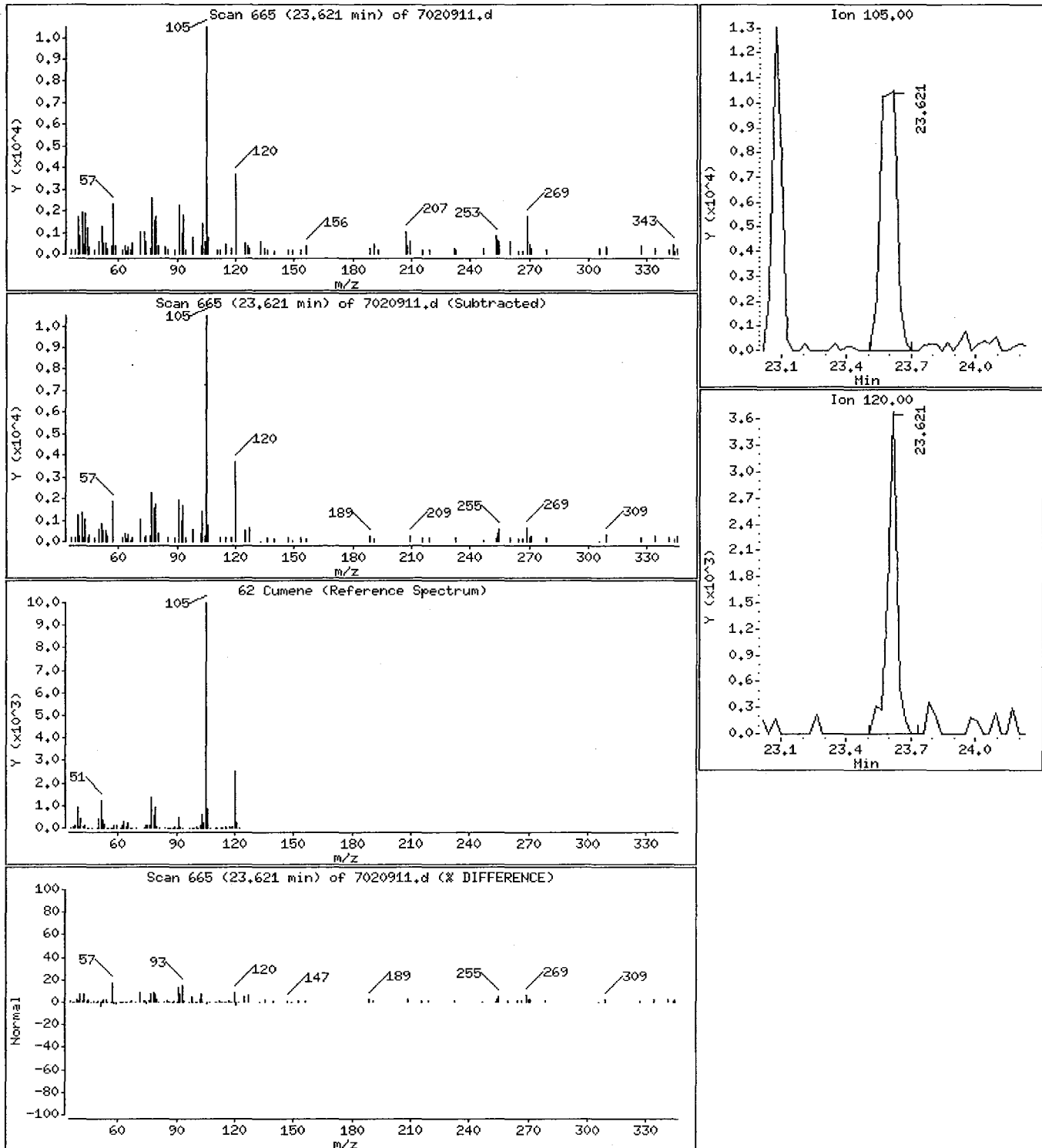
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.2608 PPBV



0515

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

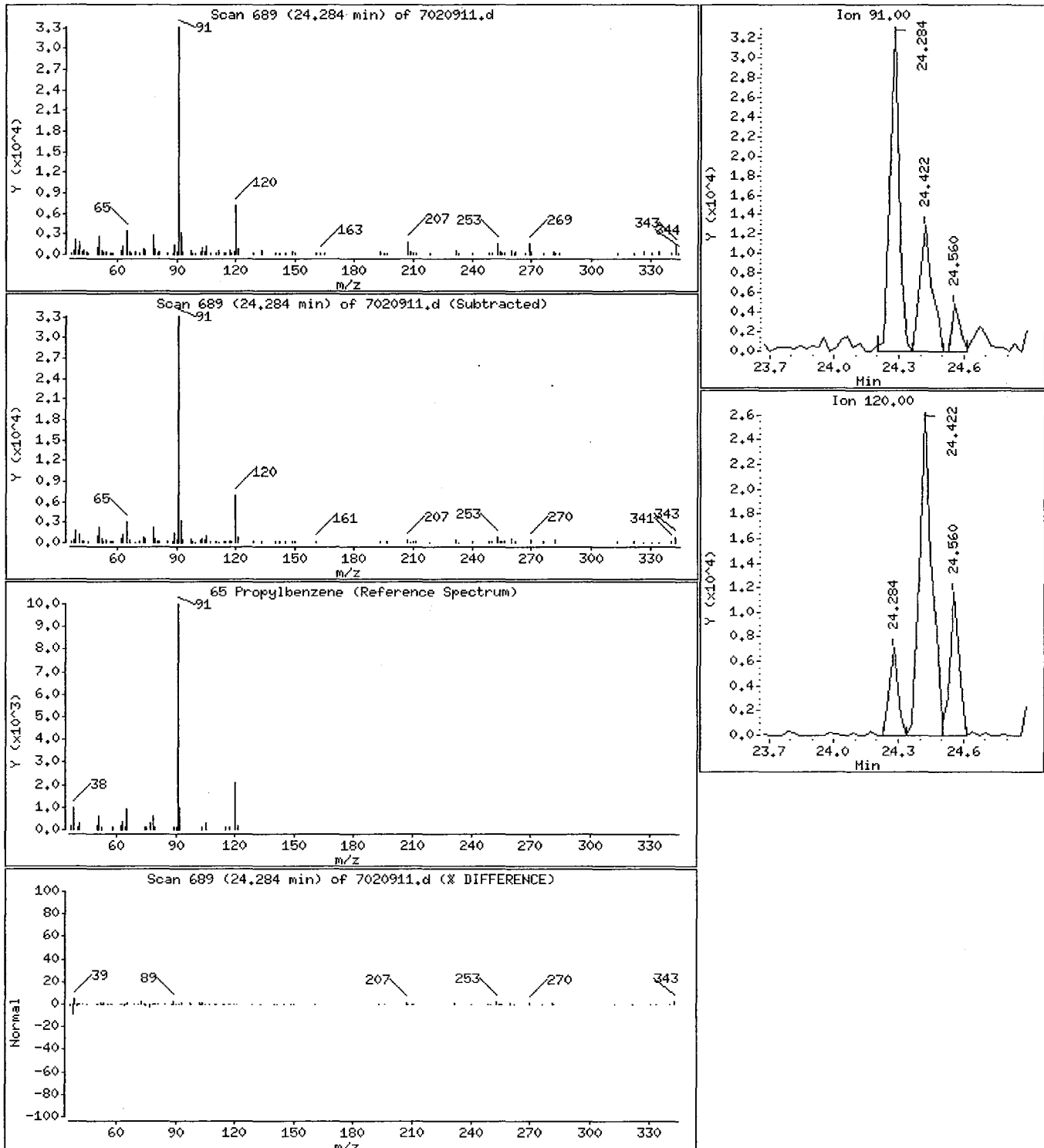
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.3156 PPBV



0516

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

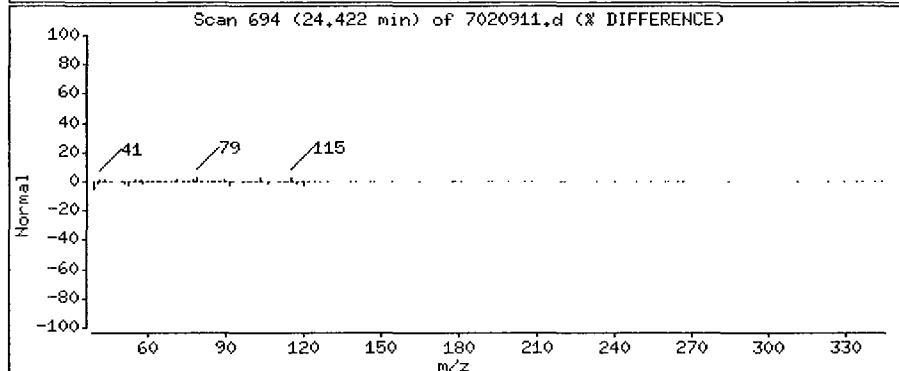
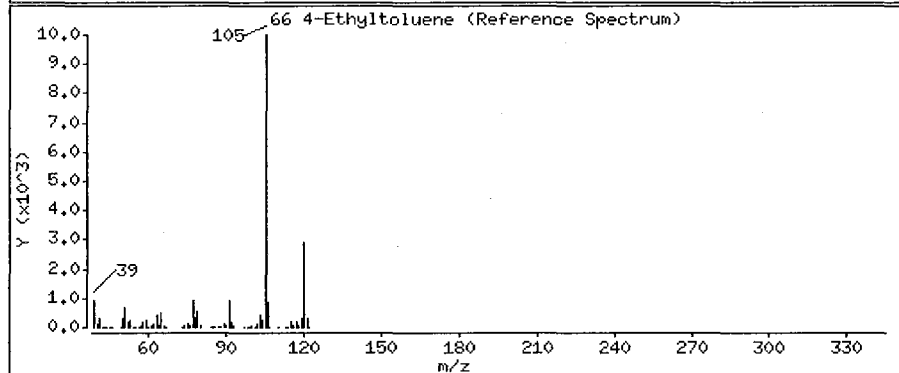
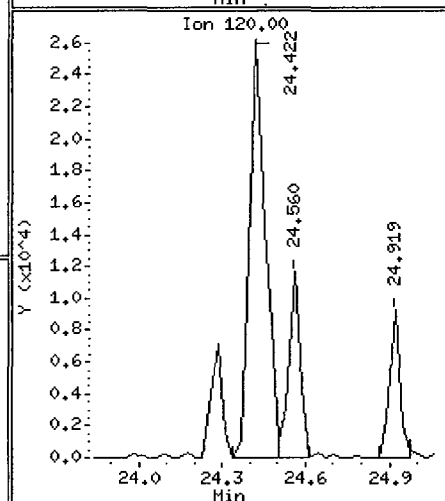
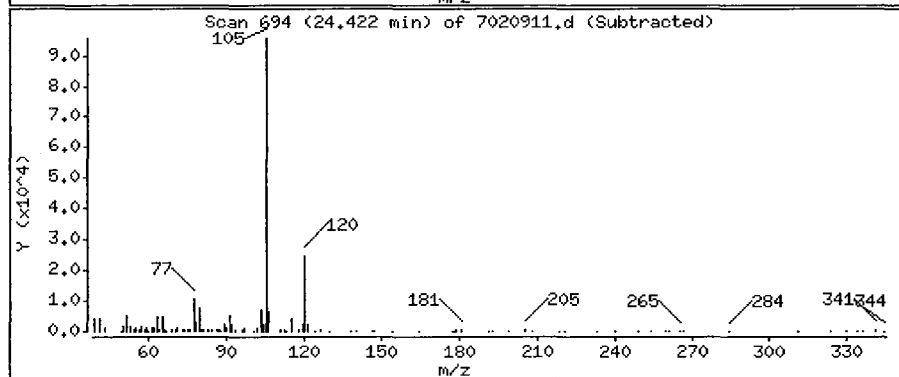
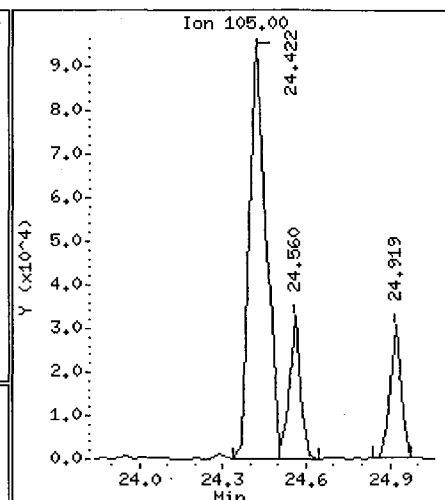
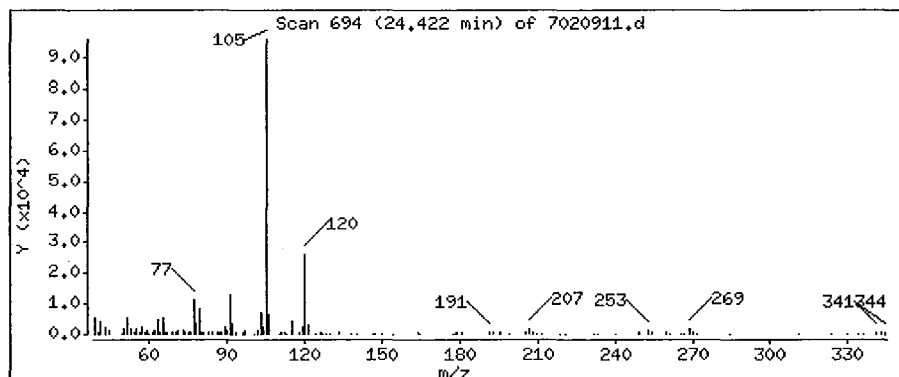
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 1.622 PPBV



0517

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

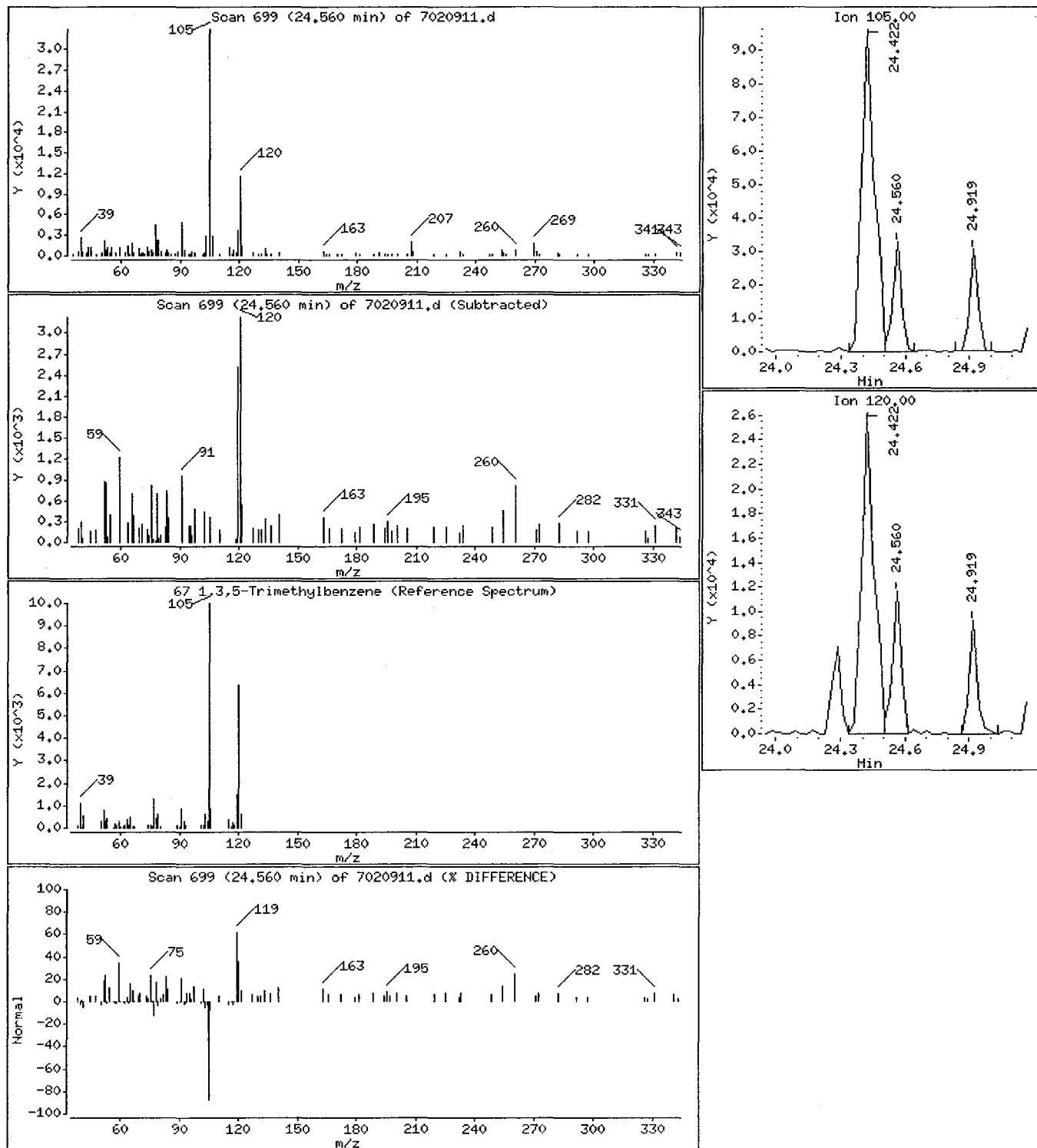
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.4169 PPBV



0518

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

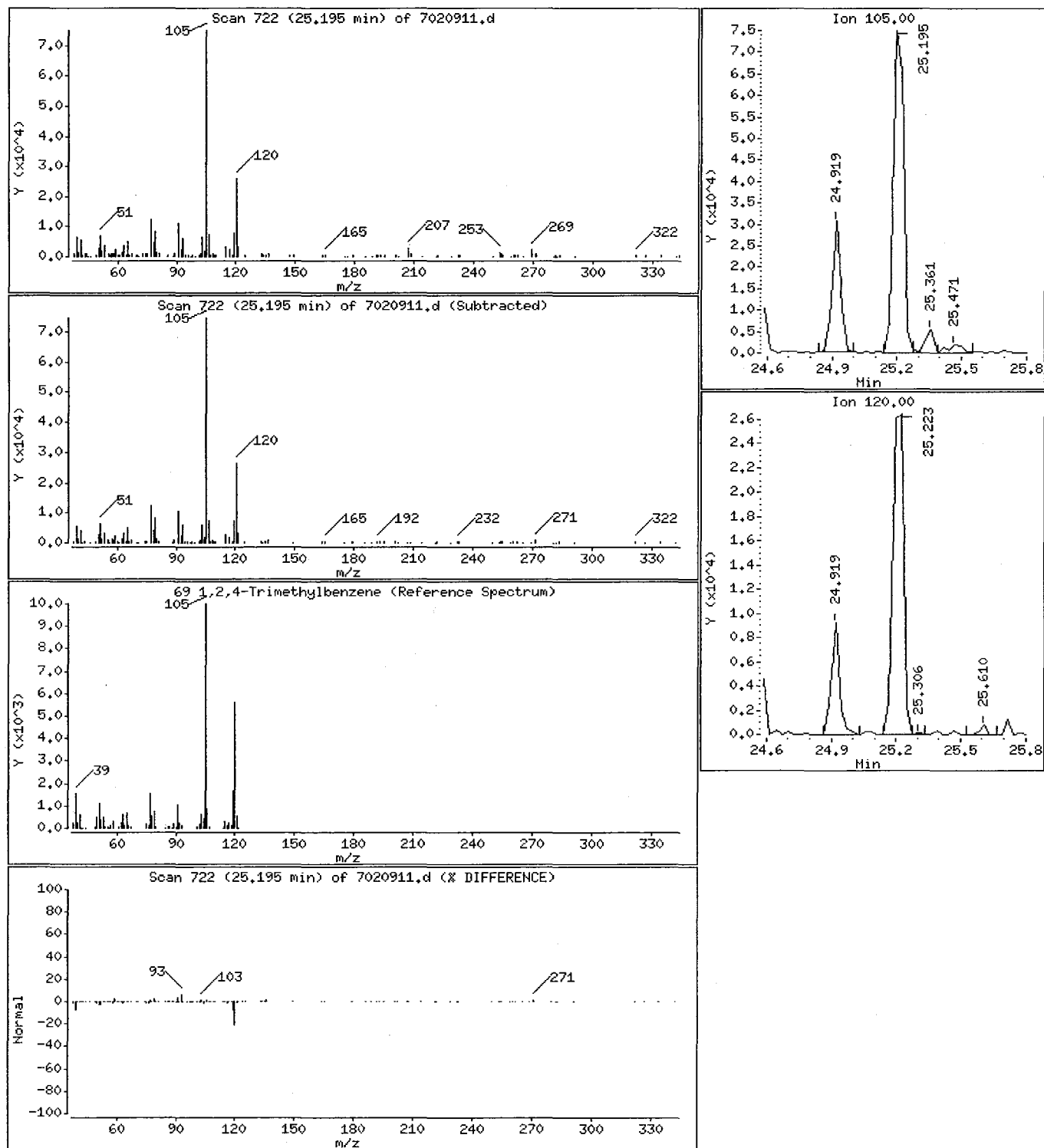
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 1.213 PPBV



0519

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

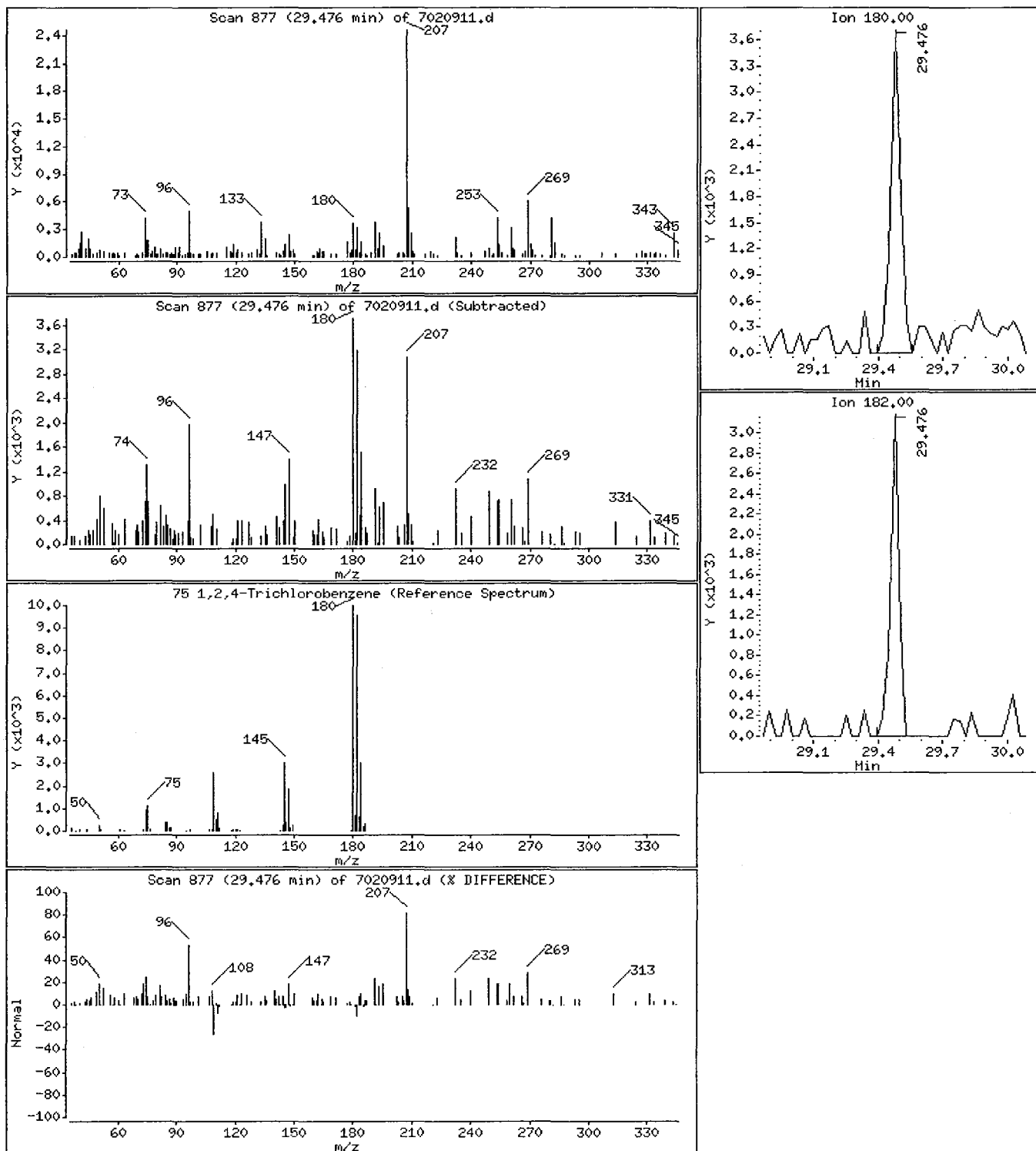
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

75 1,2,4-Trichlorobenzene

Concentration: 0.1059 PPBV



0520

Date : 09-FEB-2005 14:11

Client ID:

Instrument: msd7.i

Sample Info: 500ml, Can# 21006

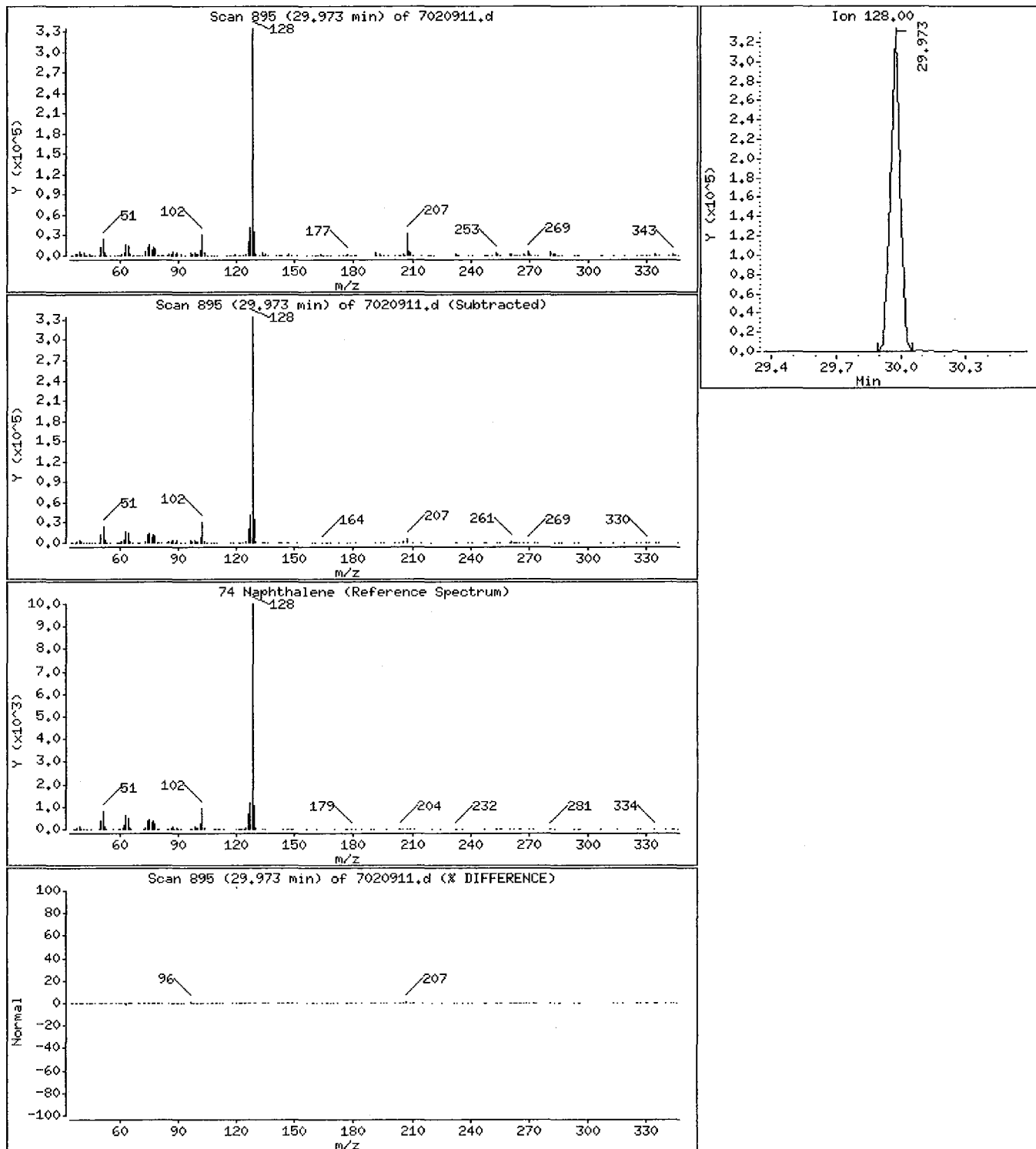
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

74 Naphthalene

Concentration: 2.171 PPBV



0521

AIR TOXICS LTD.

SAMPLE NAME: #14, Outside, near Guard Shack

ID#: 0502032-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020910	Date of Collection:	1/25/05
Dil. Factor:	1.64	Date of Analysis:	2/9/05 12:57 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.74	0.81	3.6
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.47	0.34	0.98
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Bromomethane	0.16	Not Detected	0.64	Not Detected
Chloroethane	0.16	Not Detected	0.43	Not Detected
Freon 11	0.16	0.78	0.92	4.4
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Carbon Tetrachloride	0.16	0.080 J	1.0	0.51 J
Benzene	0.16	0.64	0.52	2.0
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
Toluene	0.16	1.7	0.62	6.3
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.49	0.71	2.1
m,p-Xylene	0.16	1.6	0.71	6.7
o-Xylene	0.16	0.62	0.71	2.7
Styrene	0.16	0.094 J	0.70	0.40 J
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.17	0.81	0.86
1,2,4-Trimethylbenzene	0.16	0.60	0.81	2.9
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
Methylene Chloride	0.33	0.88	1.1	3.0
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
1,3-Butadiene	0.82	Not Detected	1.8	Not Detected
Acetone	0.82	36	1.9	86
Carbon Disulfide	0.82	0.20 J	2.6	0.64 J

AIR TOXICS LTD.

SAMPLE NAME: #14, Outside, near Guard Shack

ID#: 0502032-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020910	Date of Collection:	1/25/05
Dil. Factor:	1.64	Date of Analysis:	2/9/05 12:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.82	1.2	2.0	3.1
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	4.2	2.4	12
Hexane	0.82	0.56 J	2.9	2.0 J
Tetrahydrofuran	0.82	0.13 J	2.4	0.40 J
Cyclohexane	0.82	0.18 J	2.8	0.63 J
1,4-Dioxane	0.82	Not Detected	3.0	Not Detected
Bromodichloromethane	0.82	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	0.82	2.2	3.4	9.2
2-Hexanone	0.82	0.24 J	3.4	0.98 J
Dibromochloromethane	0.82	Not Detected	7.0	Not Detected
Bromoform	0.82	Not Detected U J	8.5	Not Detected U J
4-Ethyltoluene	0.82	0.58 J	4.0	2.9 J
Ethanol	0.82	3.9	1.5	7.4
Methyl tert-butyl ether	0.82	Not Detected	3.0	Not Detected
Heptane	0.82	0.49 J	3.4	2.0 J
Cumene	0.82	0.072 J	4.0	0.35 J
Propylbenzene	0.82	0.12 J	4.0	0.61 J
Naphthalene	0.82	Not Detected	4.3	Not Detected

J = Estimated value.

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020910.d
Lab Smp Id: 0502032-14A
Inj Date : 09-FEB-2005 12:57
Operator : ts
Smp Info : 500ml Can# 34420
Misc Info : 5.5"Hg>5psi,Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.64000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL		TARGET RANGE	
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)		RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 29 Bromochloromethane CAS #: 74-97-5								
16.331	16.331	(1.000)	130	444177	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	351329			26.96- 126.96	79.10
16.331	16.331	(1.000)	49	806255			126.50- 226.50	181.52
* 38 1,4-Difluorobenzene CAS #: 540-36-3								
17.794	17.794	(1.000)	114	2071919	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	362147			0.00- 67.64	17.48
* 54 Chlorobenzene-d5 CAS #: 3114-55-4								
22.130	22.130	(1.000)	117	1486494	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	870288			9.26- 109.26	58.55
\$ 34 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
17.214	17.214	(1.054)	65	967480	10.5755	10.576	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	436056			0.17- 100.17	45.07
\$ 45 Toluene-d8 CAS #: 2037-26-5								
19.893	19.893	(1.118)	98	1734994	9.81529	9.815	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	204094			0.00- 62.11	11.76

0524

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL		TARGET RANGE	RATIO
					(PPBV)	FINAL (PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1258393			22.24- 122.24	72.53

\$ 63 Bromofluorobenzene					CAS #: 460-00-4			
23.953	23.953	(1.082)	174	798977	10.4046	10.405	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1238668			97.68- 197.68	155.03
23.953	23.953	(1.082)	176	780261			43.78- 143.78	97.66

1 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8			
5.947	5.947	(0.364)	85	161450	0.44843	0.7354	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	52351			0.00- 81.67	32.43

4 Chloromethane					CAS #: 74-87-3			
7.356	7.356	(0.450)	50	30004	0.28906	0.4741	80.00- 120.00	100.00
7.328	7.356	(0.449)	52	8048			0.00- 84.65	26.82

10 Trichlorofluoromethane/Fr11					CAS #: 75-69-4			
11.056	11.056	(0.677)	101	148381	0.47395	0.7773	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	93930			13.78- 113.78	63.30

12 Ethanol					CAS #: 64-17-5			
12.050	12.050	(0.738)	45	105776	2.40717	3.948	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	27797			0.00- 76.71	26.28
12.050	12.050	(0.738)	46	42752			0.00- 90.17	40.42

16 Acetone					CAS #: 67-64-1			
12.824	12.824	(0.785)	43	5158869	22.0415	36.148	80.00- 120.00	100.00
12.824	12.824	(0.785)	58	1375762			0.00- 78.78	26.67

18 2-Propanol					CAS #: 67-63-0			
13.238	13.238	(0.811)	45	168140	0.76004	1.246	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	42326			0.00- 69.75	25.17
13.238	13.238	(0.811)	59	4707			0.00- 53.72	2.80

17 Carbon Disulfide					CAS #: 75-15-0			
12.906	12.906	(0.790)	76	36192	0.12450	0.2042	80.00- 120.00	100.00(a)

20 Methylene Chloride					CAS #: 75-09-2			
13.735	13.735	(0.841)	84	49719	0.53679	0.8803	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	19877			111.57- 211.57	39.98
13.735	13.735	(0.841)	51	12050			0.00- 93.42	24.24

24 Hexane					CAS #: 110-54-3			
14.563	14.563	(0.892)	57	59427	0.33860	0.5553	80.00- 120.00	100.00(a)
14.591	14.563	(0.893)	43	241861			15.23- 115.23	406.99
14.563	14.563	(0.892)	86	8104			0.00- 65.23	13.64

0525

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	123352	2.54326	4.171	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	637660			1046.10-1146.10	516.94	
15.972	15.972	(0.978)	57	52553			0.00- 89.21	42.60	
23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	11009	0.08180	0.1341	80.00- 120.00	100.00 (a)	
16.331	16.331	(1.000)	71	3374			0.00- 82.39	30.65	
16.331	16.331	(1.000)	72	1181			0.00- 86.54	10.73	
31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	10815	0.11144	0.1828	80.00- 120.00	100.00 (a)	
16.662	16.662	(1.020)	56	35014			93.37- 193.37	323.75	
16.662	16.662	(1.020)	41	27081			30.80- 130.80	250.40	
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	7824	0.04905	0.08045	80.00- 120.00	100.00 (a)	
16.883	16.883	(1.034)	117	10289			62.01- 162.01	131.51	
35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	117680	0.39136	0.6418	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	25930			0.00- 72.07	22.03	
37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	52954	0.30161	0.4946	80.00- 120.00	100.00 (a)	
17.435	17.435	(0.980)	57	21168			1.42- 101.42	39.97	
17.435	17.435	(0.980)	100	6283			0.00- 66.93	11.87	
44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	266289	1.37103	2.248	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	102536			0.00- 87.49	38.51	
19.727	19.727	(1.109)	85	40245			0.00- 66.91	15.11	
46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	350701	1.01803	1.670	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	209841			11.18- 111.18	59.83	
50 2-Hexanone						CAS #: 591-78-6			
20.942	20.942	(0.946)	58	14195	0.14617	0.2397	80.00- 120.00	100.00 (a)	
20.942	20.942	(0.946)	43	27259			144.58- 244.58	192.03	
20.942	20.942	(0.946)	100	2787			0.00- 68.76	19.63	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	36515	0.29919	0.4907	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	119352			294.68- 394.68	326.86	

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	(PPBV)	(PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	141329	0.94680	1.553	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	329249			168.06- 268.06	232.97

58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	46002	0.37842	0.6206	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	100357			186.48- 286.48	218.16

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	10819	0.05749	0.09429	80.00- 120.00	100.00(a)
23.069	23.096	(1.042)	78	14571			6.37- 106.37	134.68

62 Cumene						CAS #: 98-82-8		
23.621	23.621	(1.067)	105	12906	0.04373	0.07172	80.00- 120.00	100.00(a)
23.621	23.621	(1.067)	120	1494			0.00- 70.65	11.58

65 Propylbenzene						CAS #: 103-65-1		
24.284	24.284	(1.097)	91	30922	0.07614	0.1249	80.00- 120.00	100.00(a)
24.284	24.284	(1.097)	120	6674			0.00- 69.13	21.58

66 4-Ethyltoluene						CAS #: 622-96-8		
24.422	24.450	(1.104)	105	115121	0.35543	0.5829	80.00- 120.00	100.00(a)
24.422	24.450	(1.104)	120	34774			0.00- 73.94	30.21

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	30487	0.10609	0.1740	80.00- 120.00	100.00
24.560	24.560	(1.110)	120	9110			0.00- 88.64	29.88

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	100095	0.36411	0.5971	80.00- 120.00	100.00
25.195	25.195	(1.139)	120	36380			0.00- 87.09	36.35

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0527

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020910.d
Lab Smp Id: 0502032-14A
Analysis Type: VOA
Quant Type: ISTD
Operator: ts
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 5.5"Hg>5psi,Clayton

Calibration Date: 09-FEB-2005
Calibration Time: 00:48
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	444177	-6.41
38 1,4-Difluorobenze	2234295	1340577	3128013	2071919	-7.27
54 Chlorobenzene-d5	1557243	934346	2180140	1486494	-4.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0528

SCOEPAA00032200

Report Date: 11-Feb-2005 17:52

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-14A
Level: LOW Operator: ts
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 5.5"Hg>5psi,Clayton

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.576	105.76	70-130
\$ 45 Toluene-d8	10.000	9.815	98.15	70-130
\$ 63 Bromofluorobenzene	10.000	10.405	104.05	70-130

0529

SCOEPAA00032201

Date : 09-FEB-2005 12:57

Client ID:

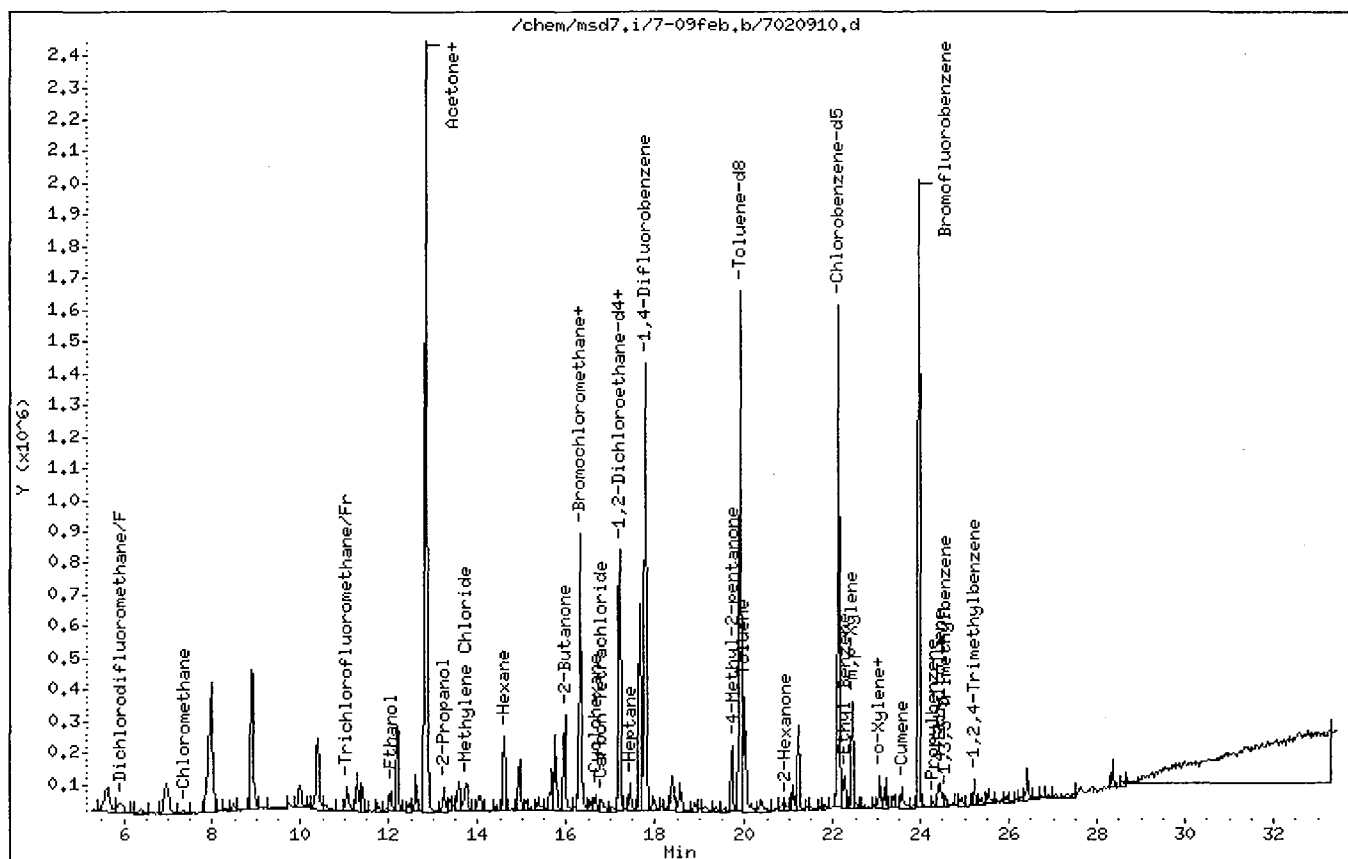
Instrument: msd7.i

Sample Info: 500ml Can# 34420

Operator: ts

Column phase: RTX-624

Column diameter: 0.32



0530

SCOEP00032202

Data File: /chem/msd7.i/7-09feb.b/7020910.d

Page 2

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

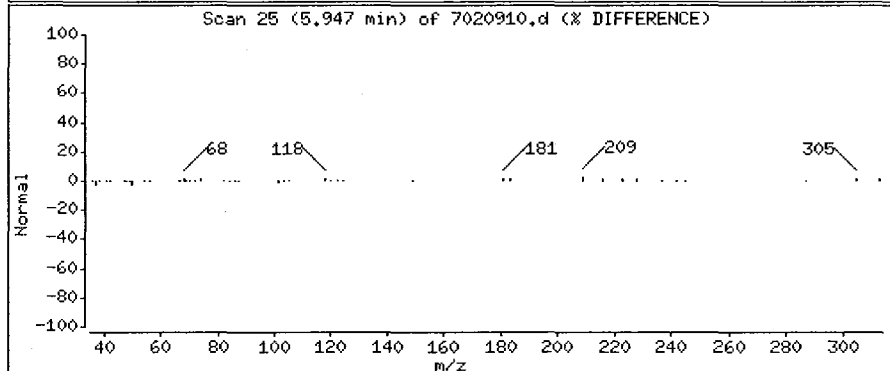
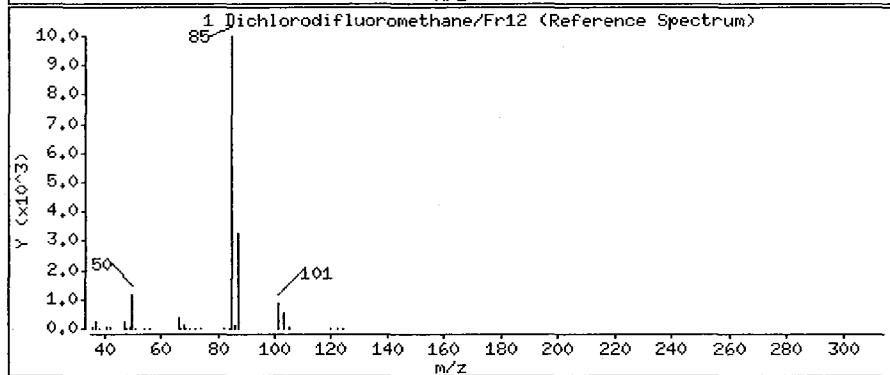
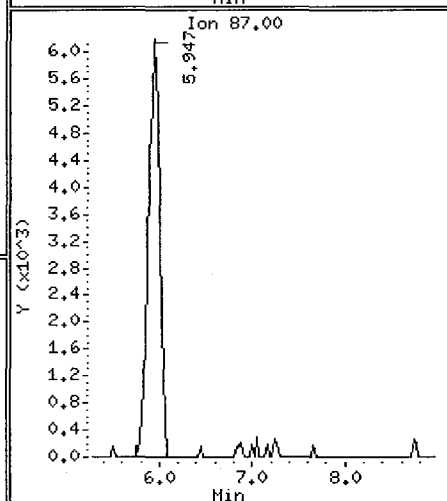
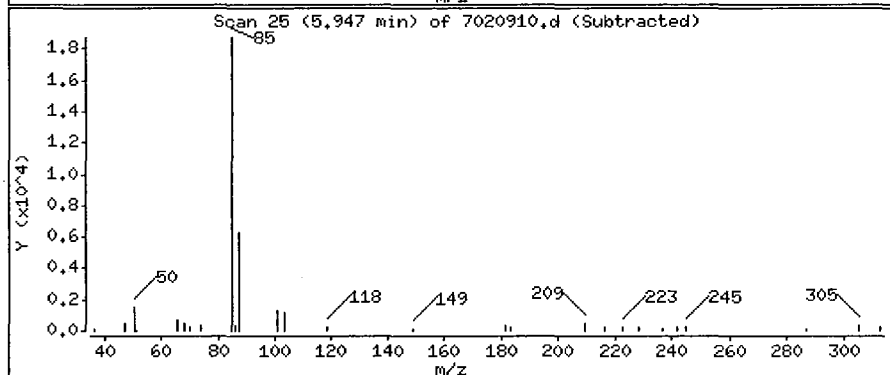
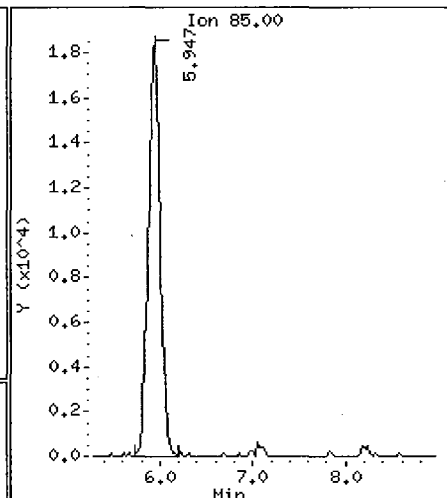
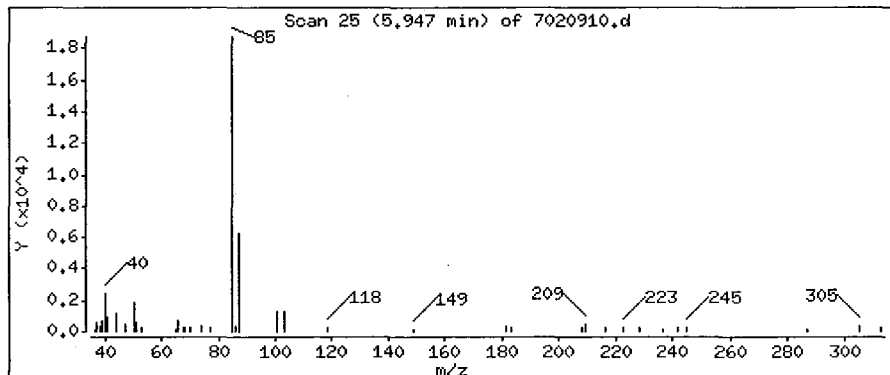
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.7354 PPBV



0531

SCOEP00032203

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

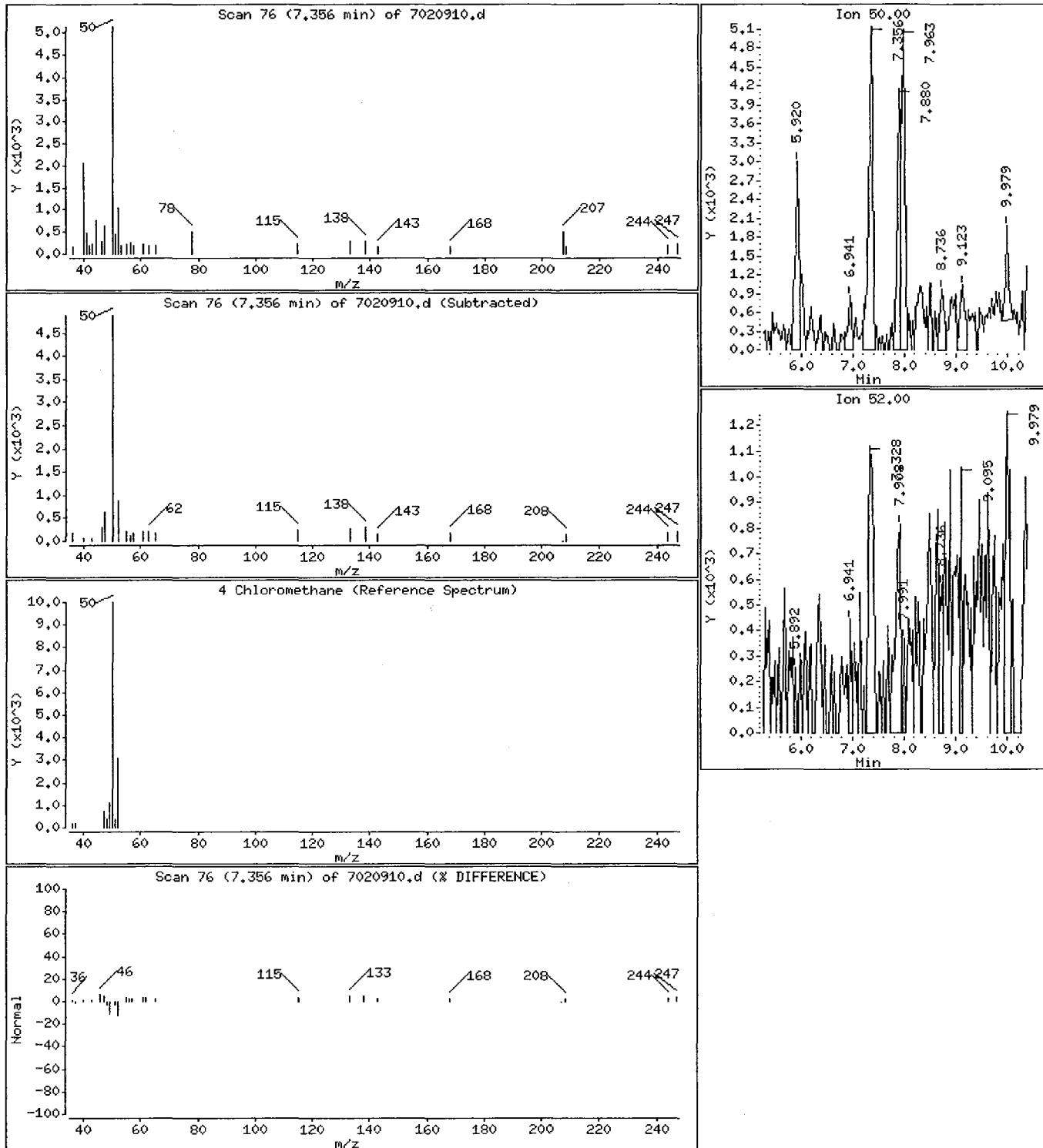
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4741 PPBV



0532

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

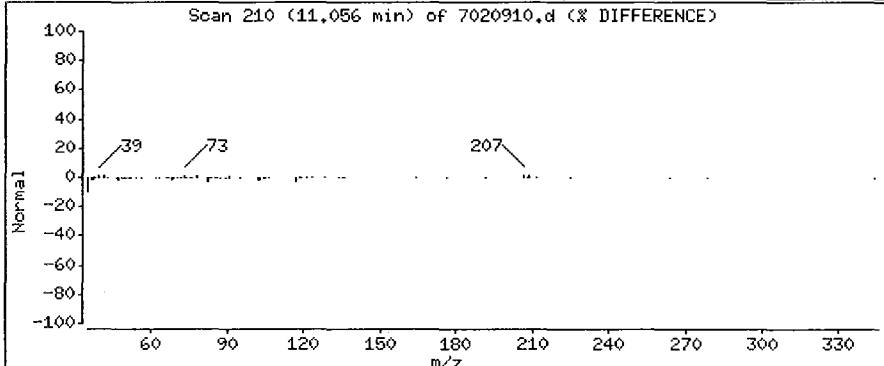
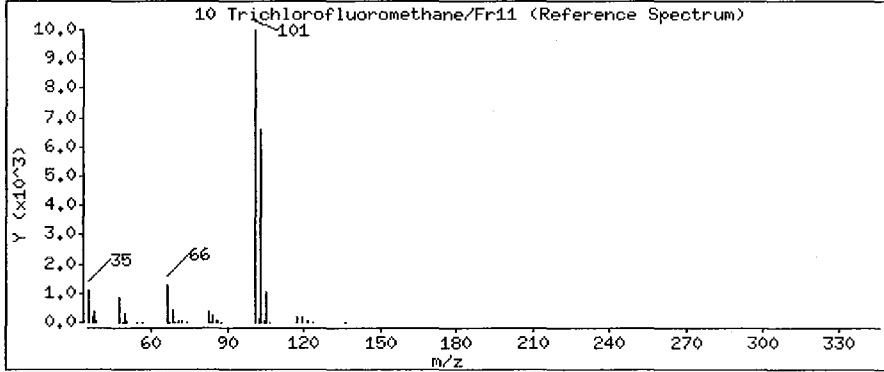
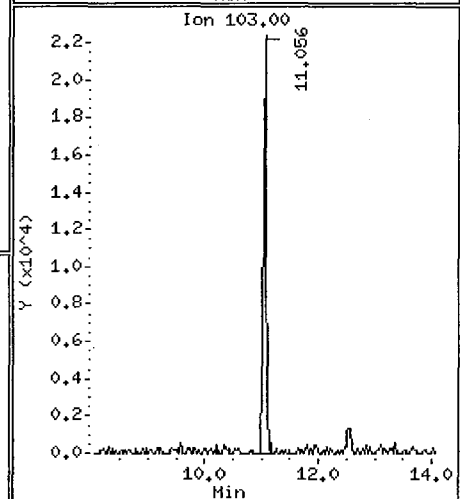
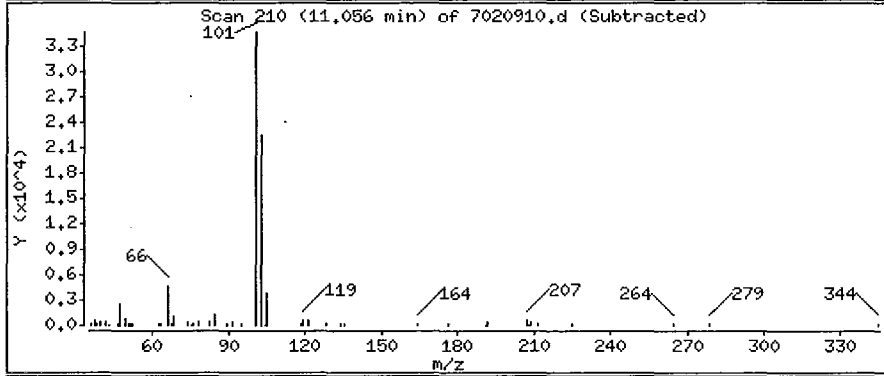
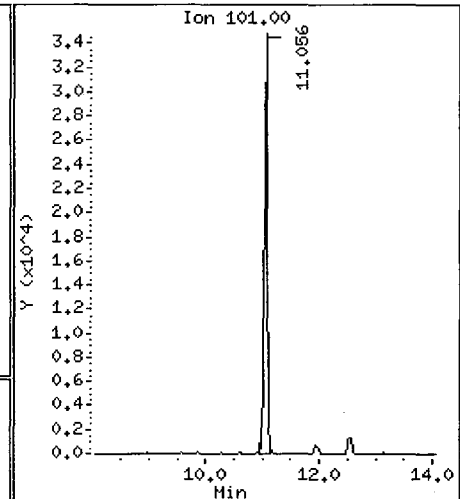
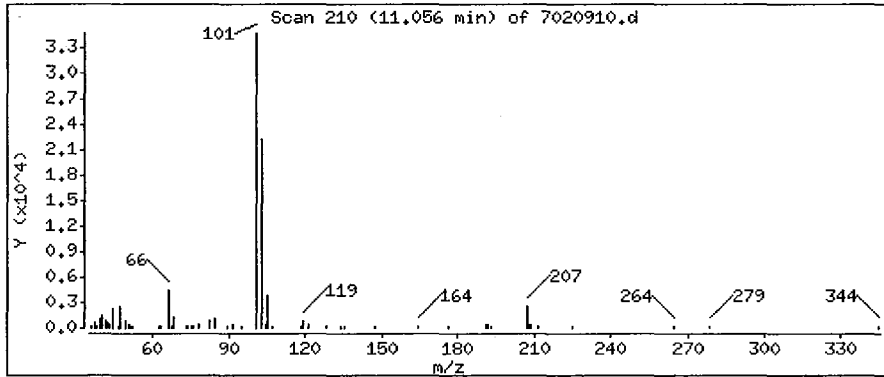
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 0.7773 PPBV



0533

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

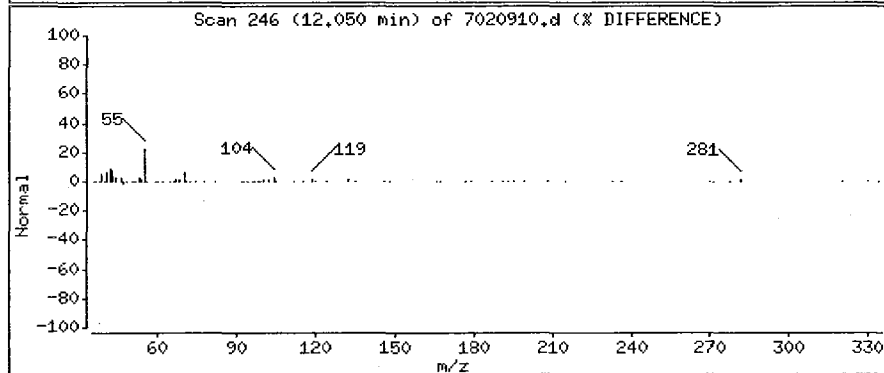
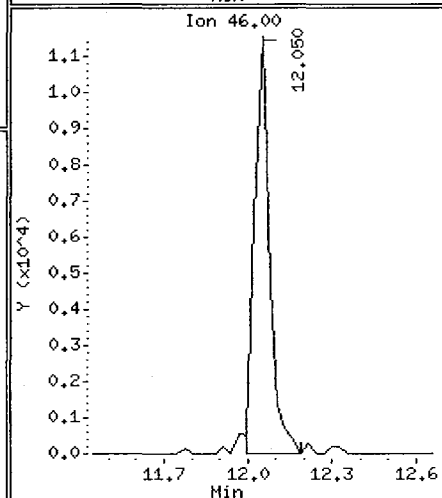
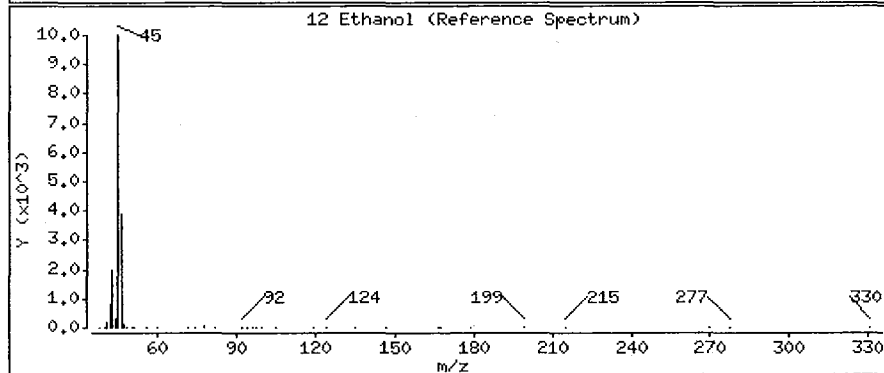
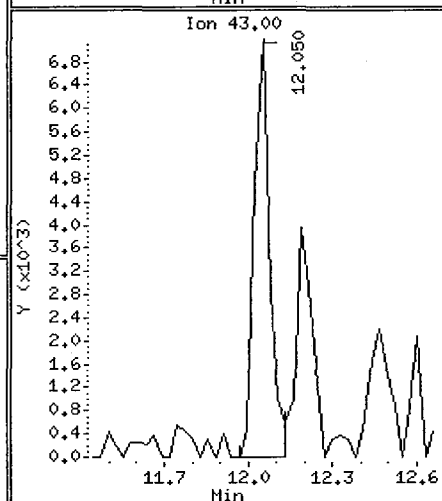
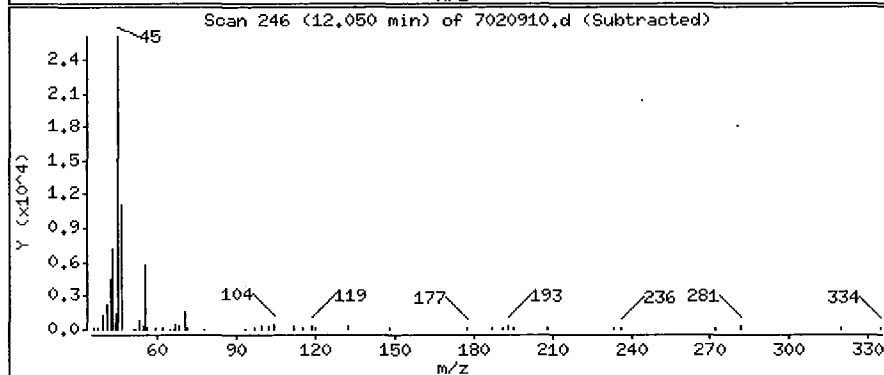
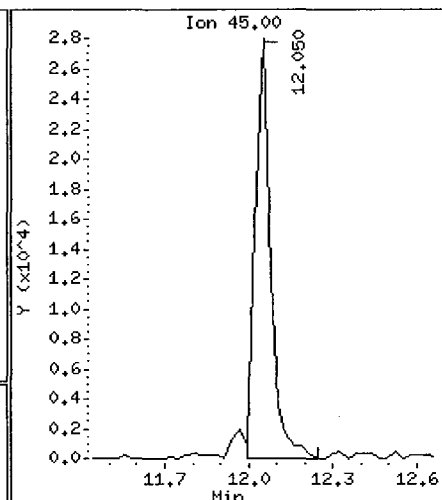
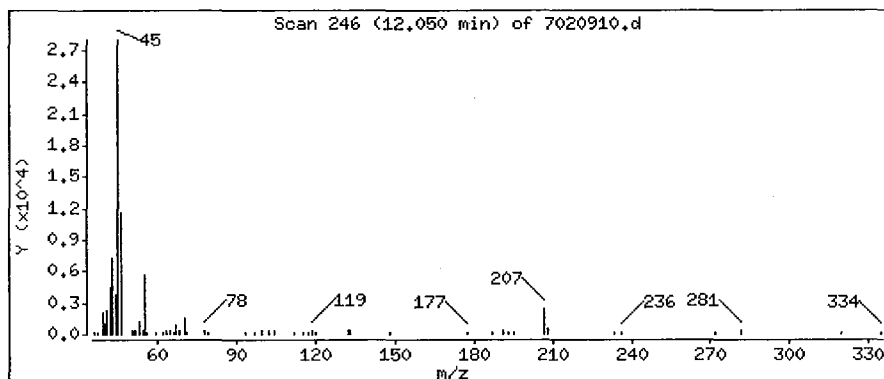
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 3.948 PPBV



0534

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

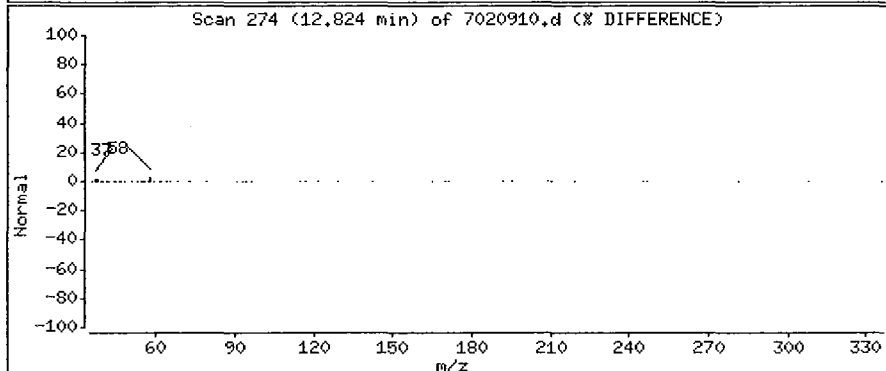
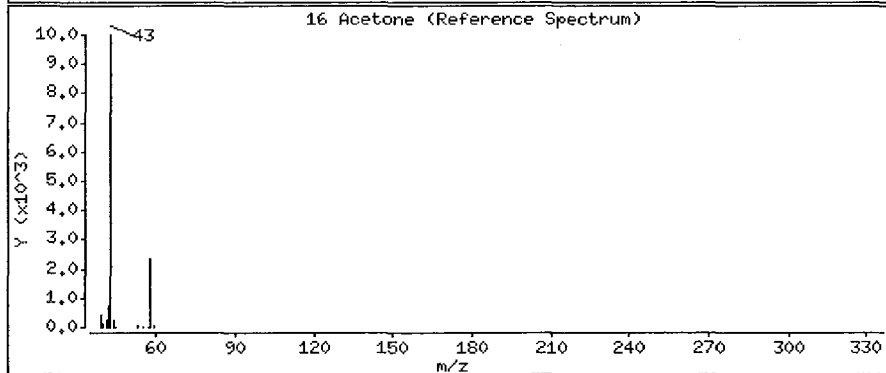
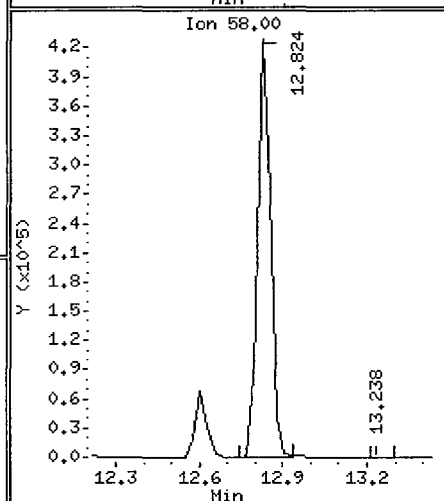
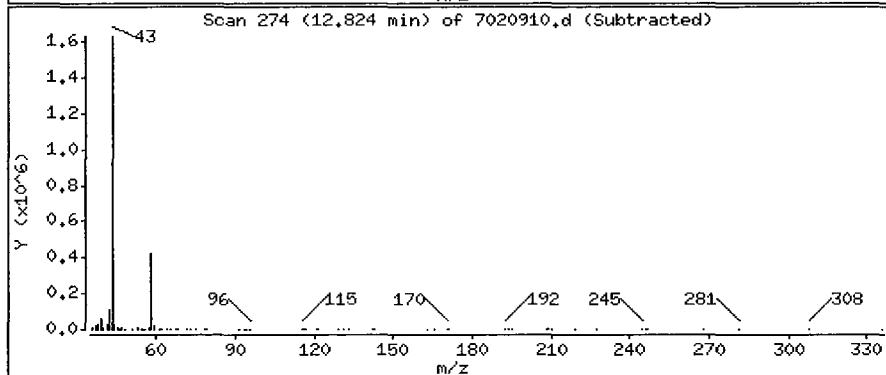
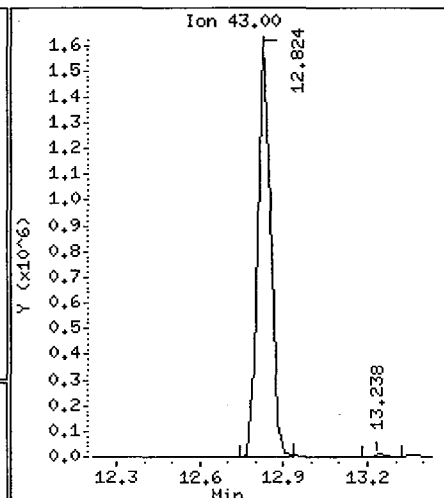
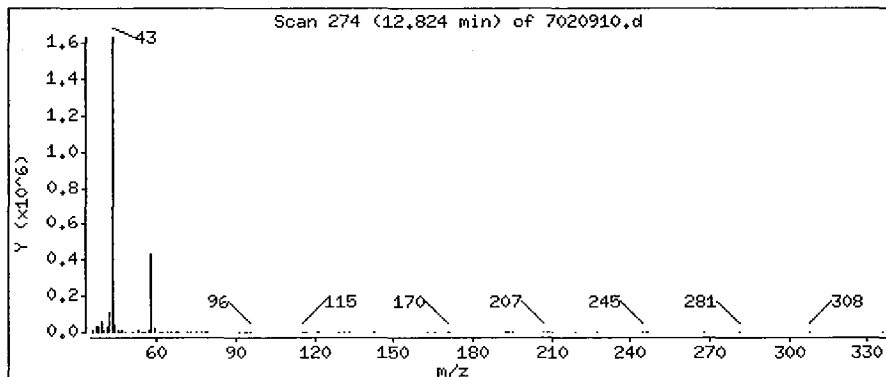
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 36,148 PPBV



0535

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

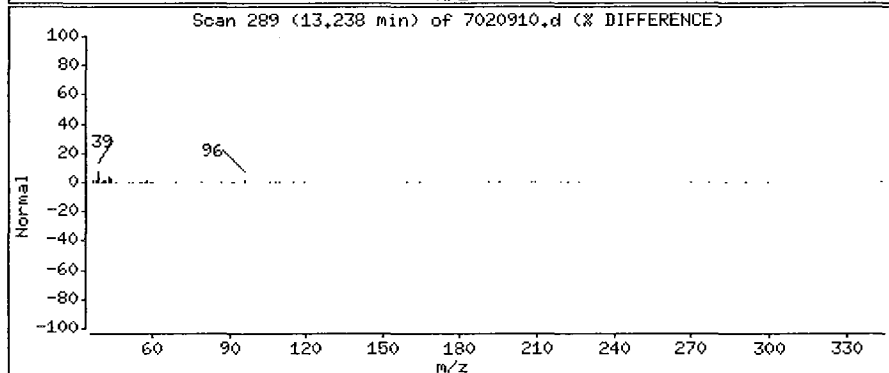
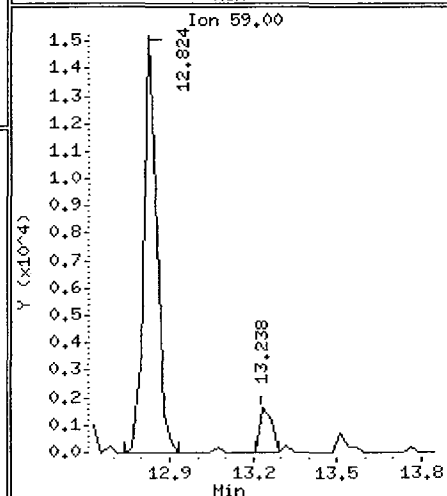
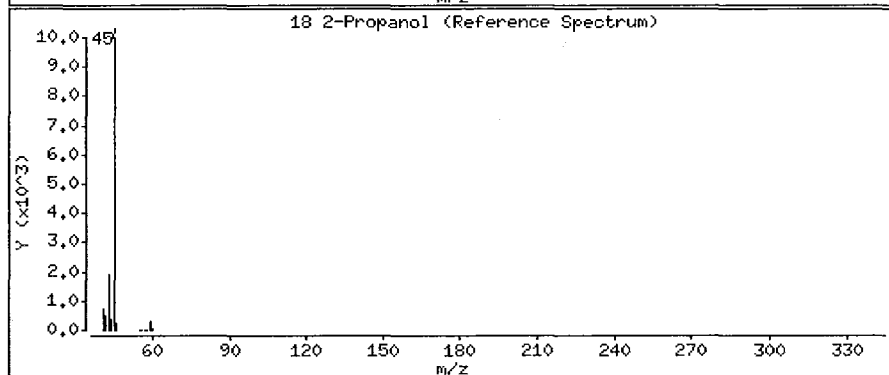
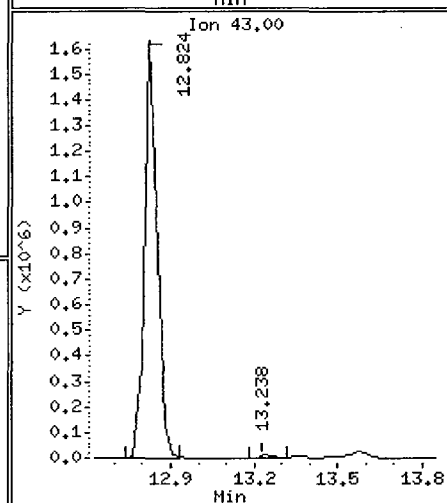
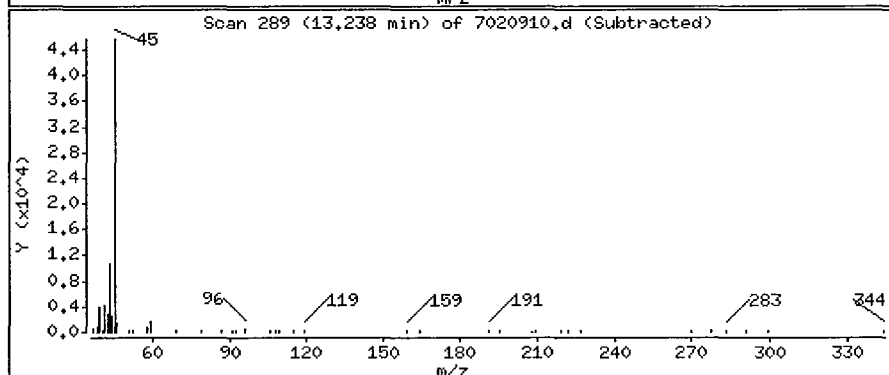
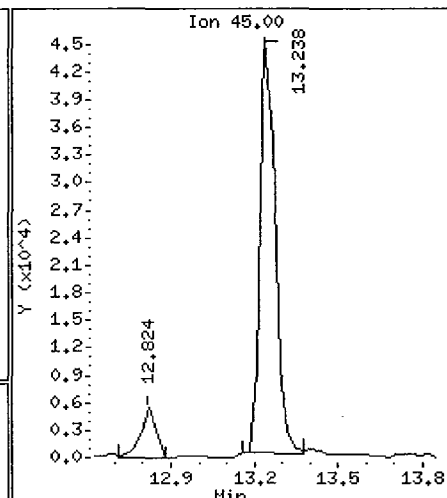
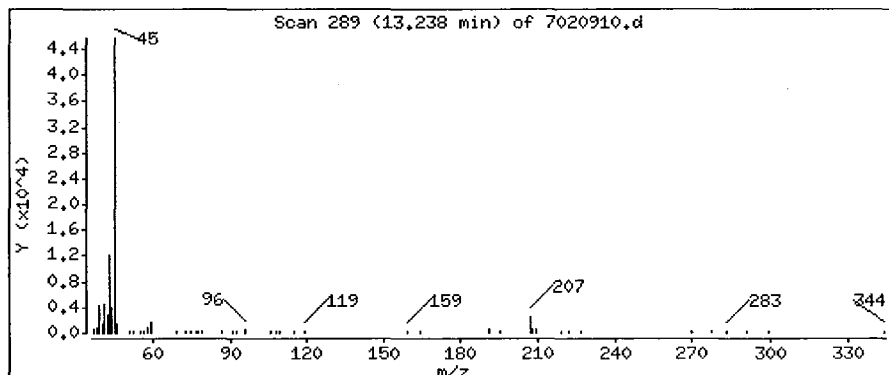
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 1.246 PPBV



0536

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

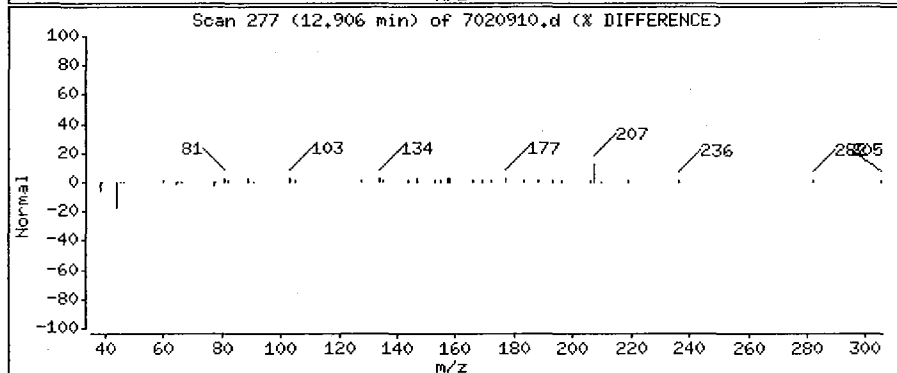
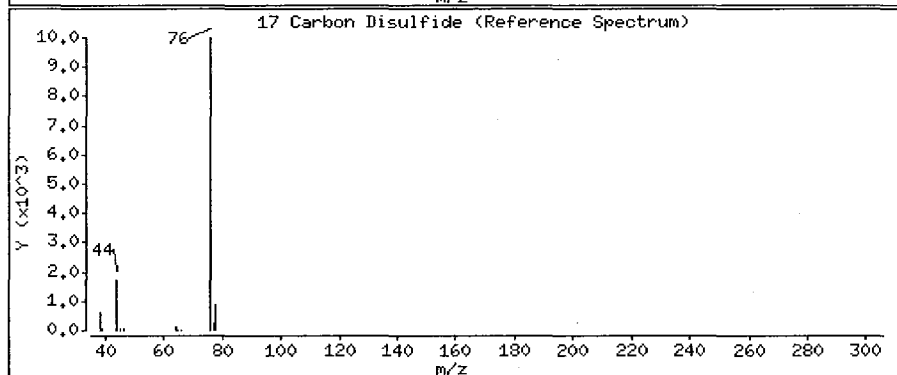
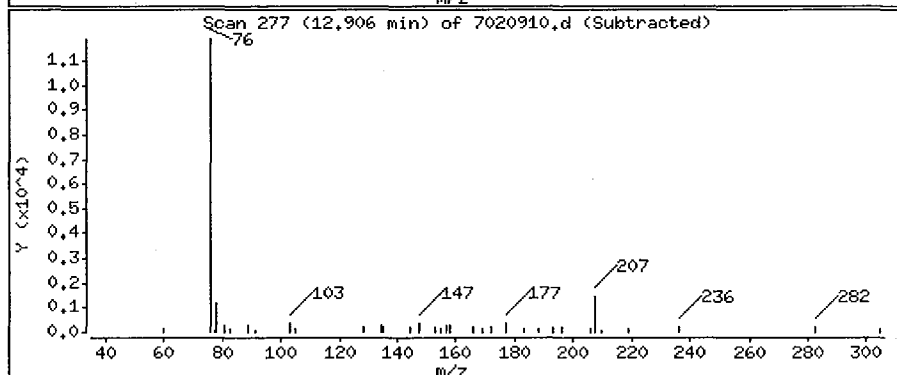
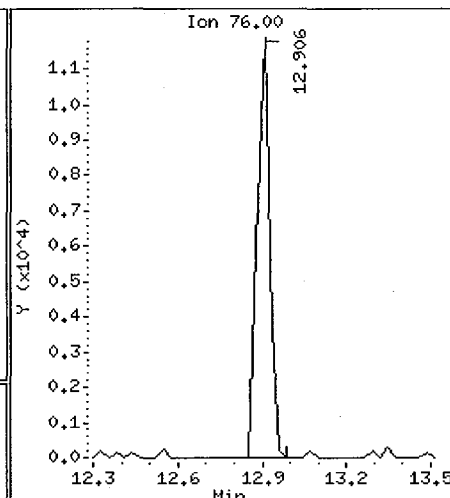
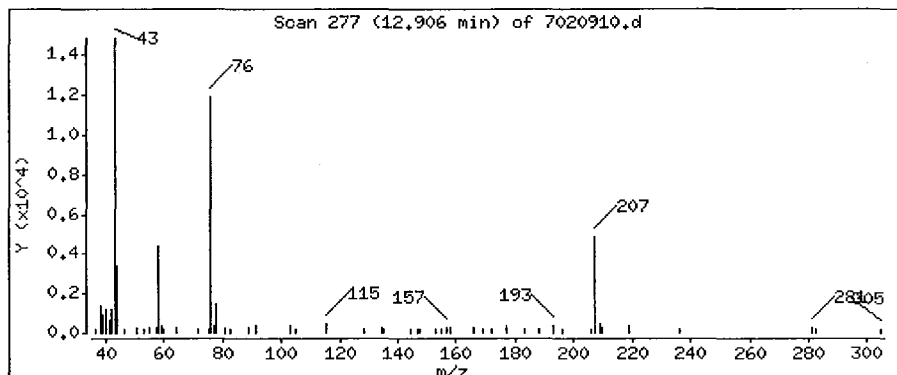
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 0.2042 PPBV



0537

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

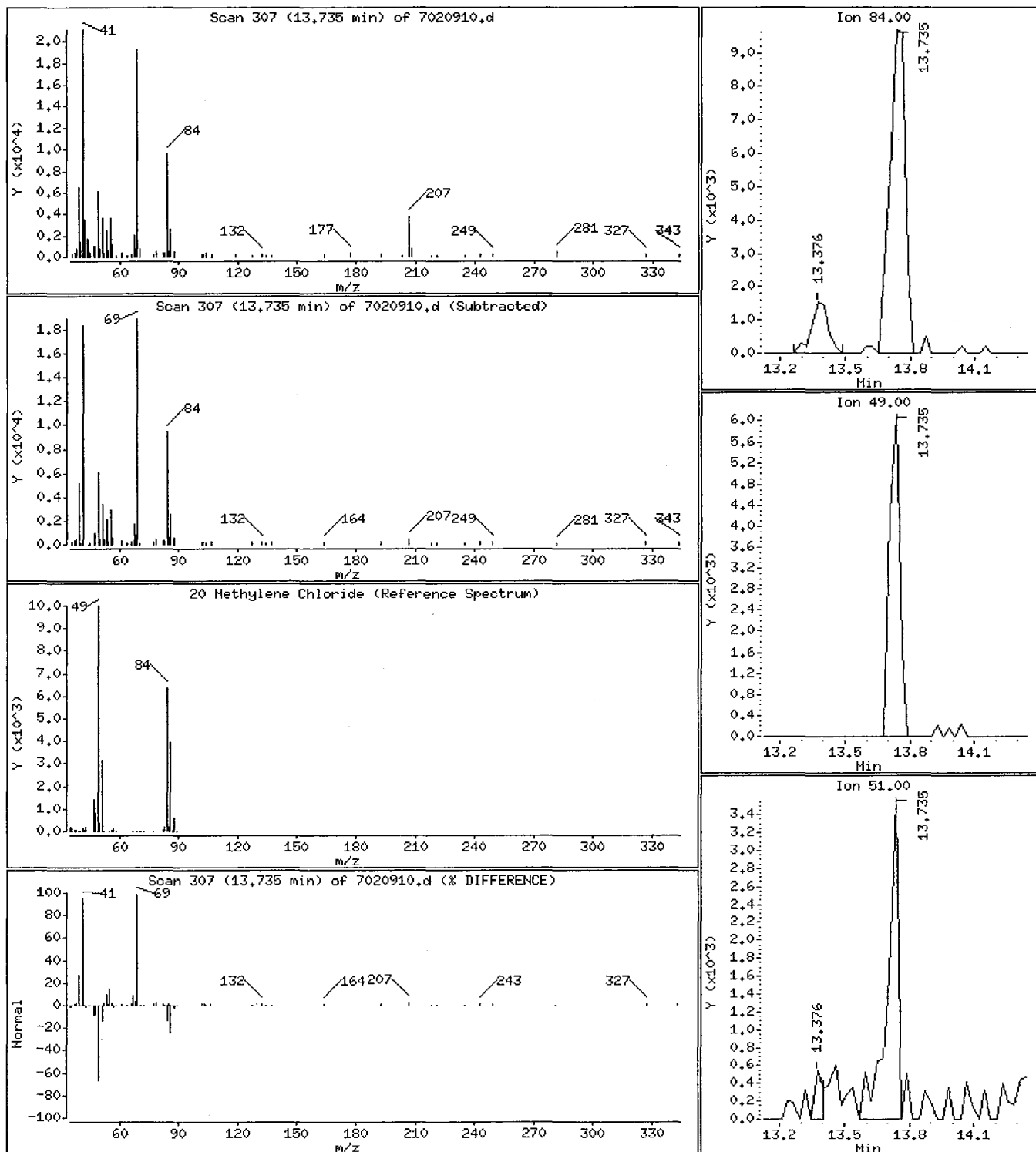
Operator: ts

Column phase: RTx-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.8803 PPBV



0538

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

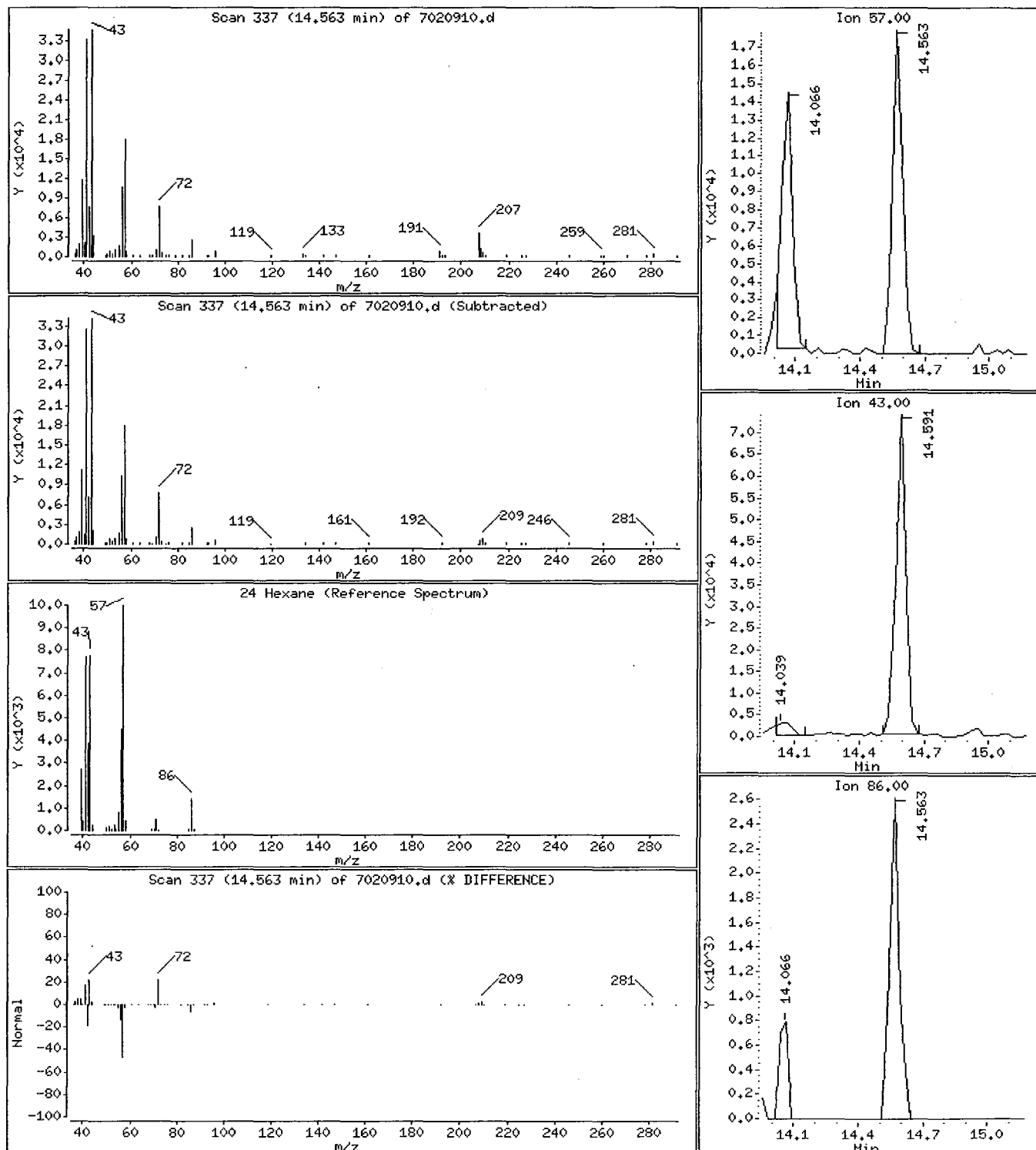
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.5553 PPBV



0539

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

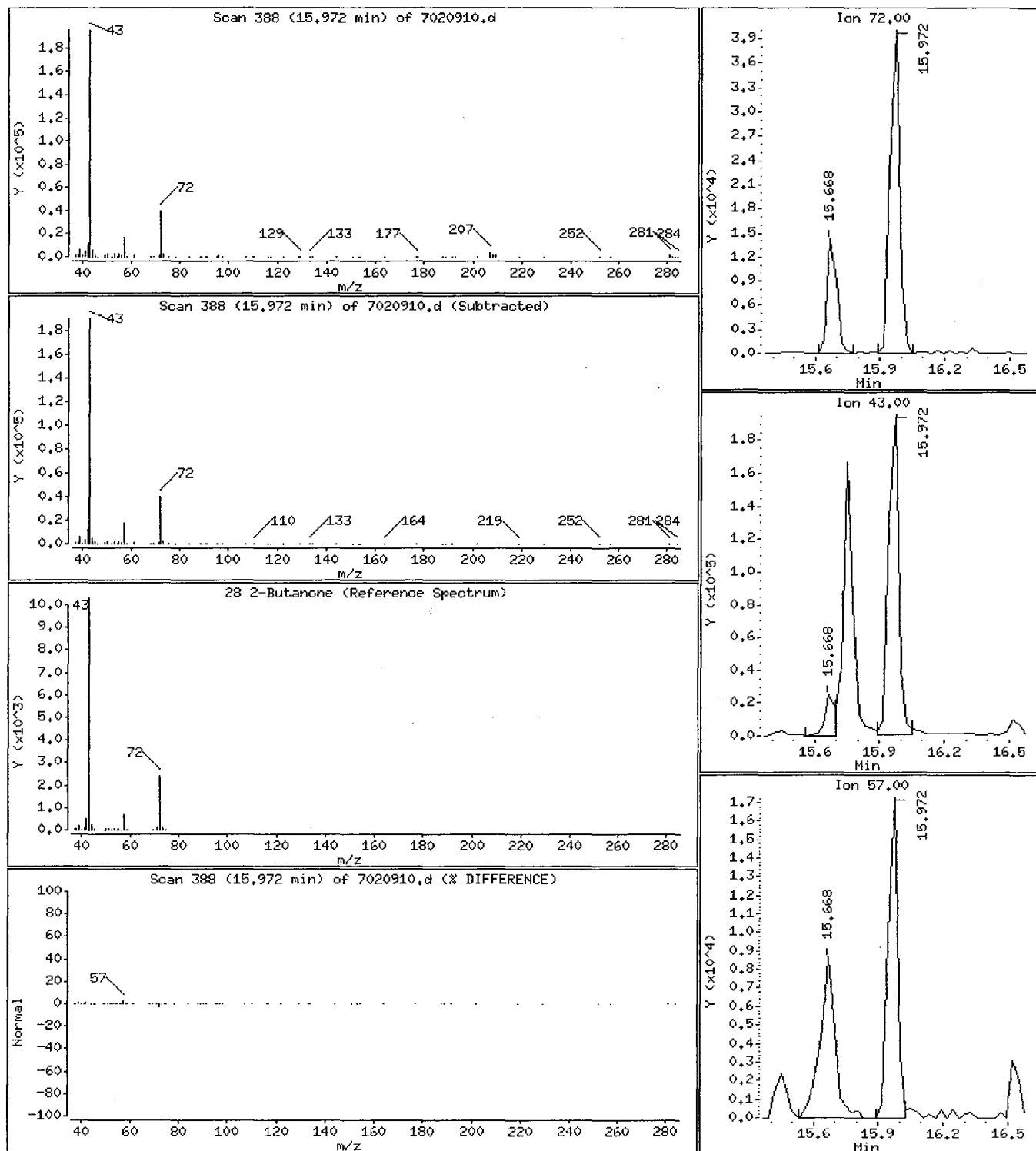
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 4.171 PPBV



0540

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

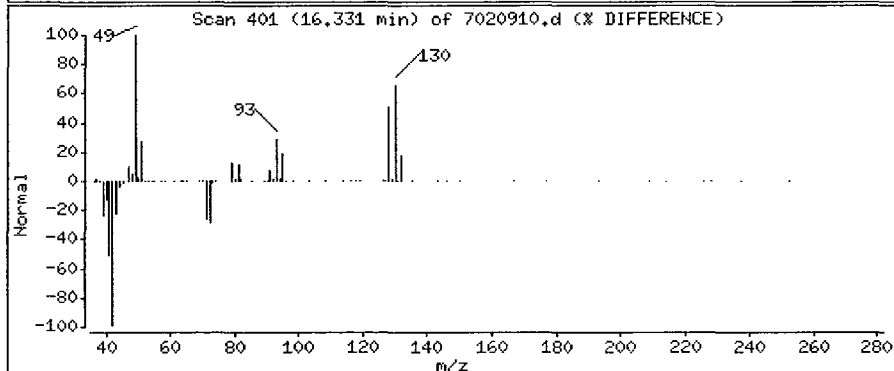
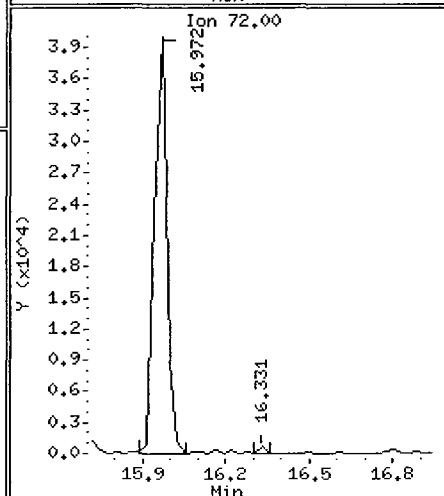
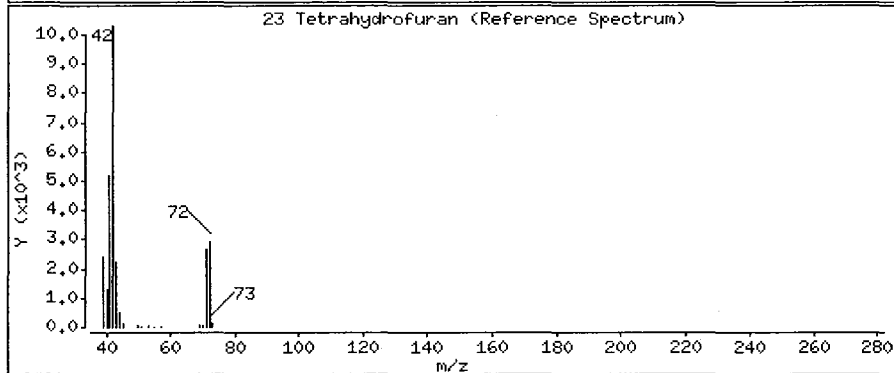
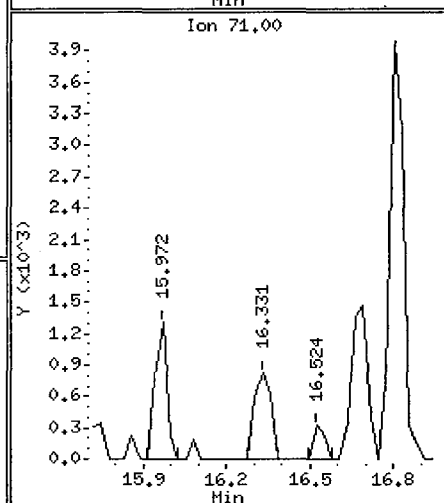
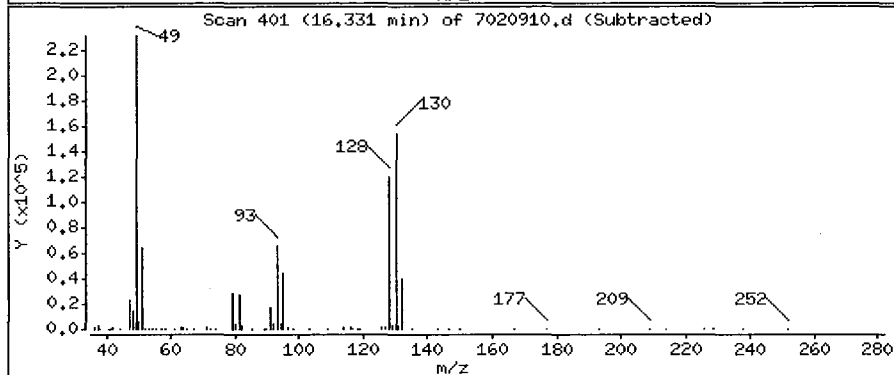
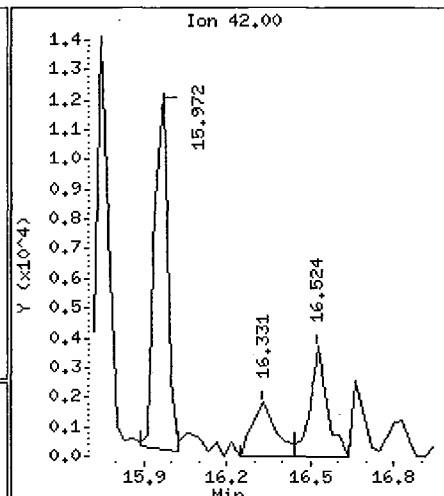
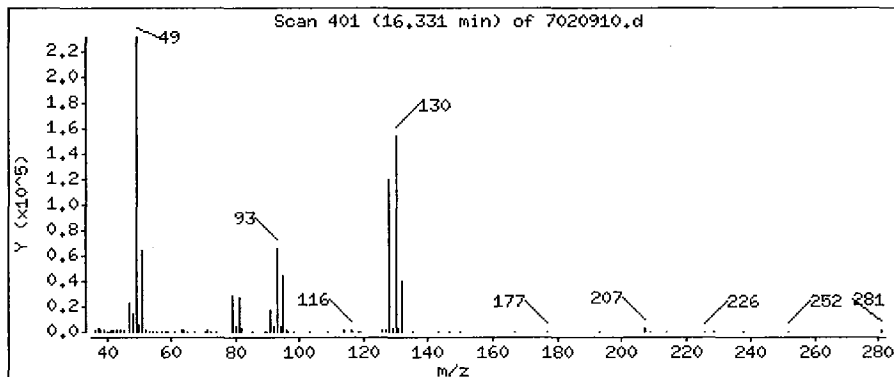
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1341 PPBV



0541

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

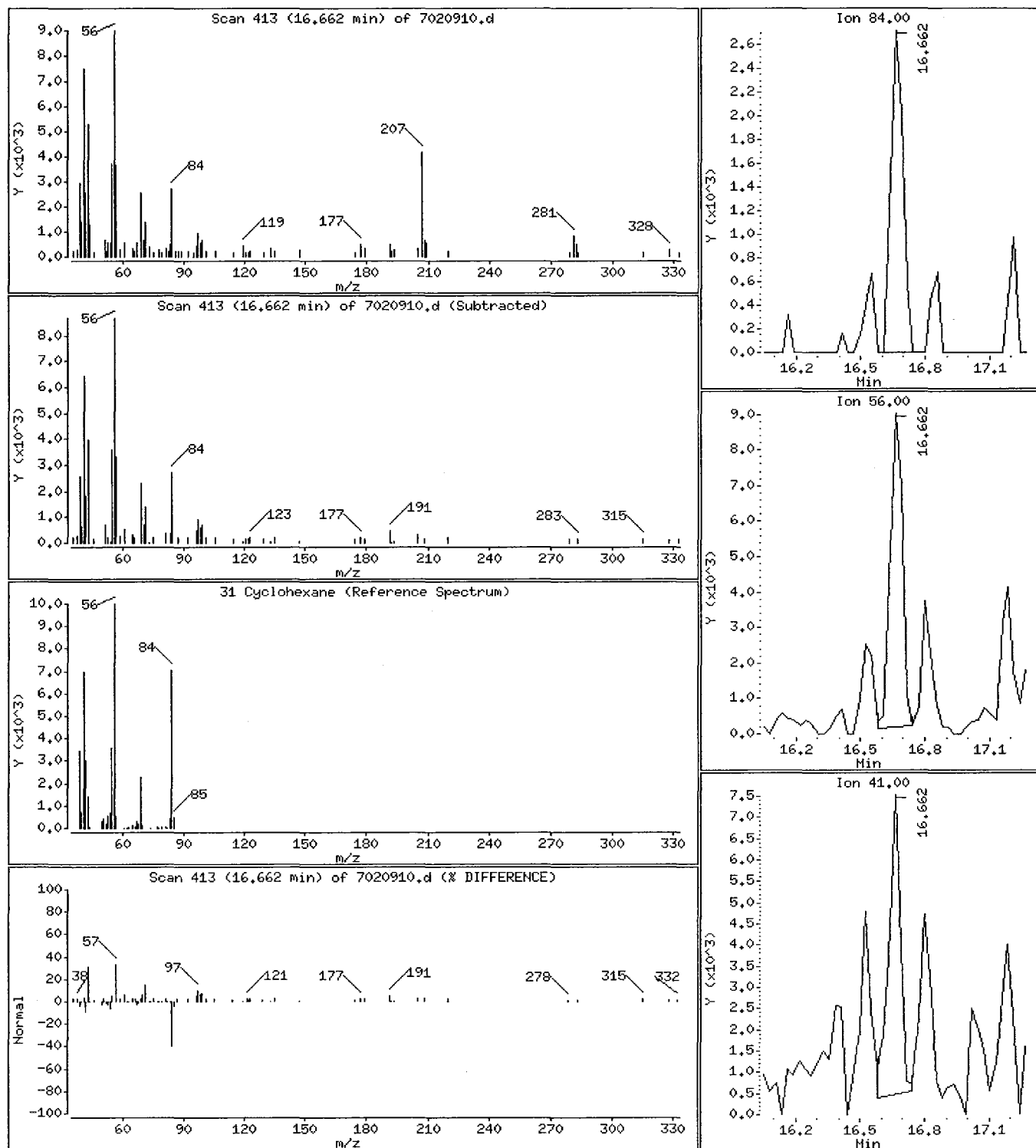
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.1828 PPEV



0542

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

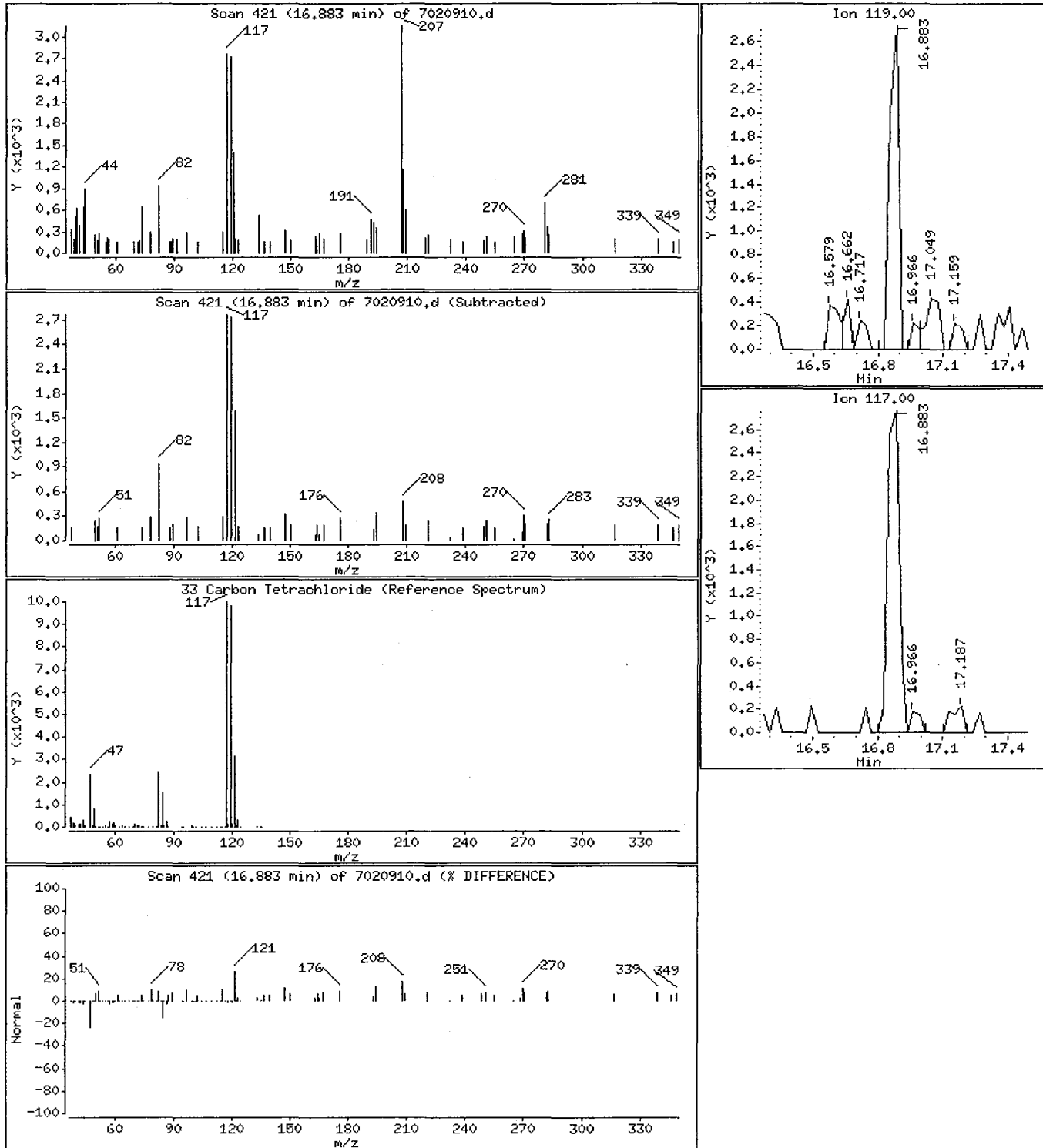
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.08045 PPBV



0543

Date: 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

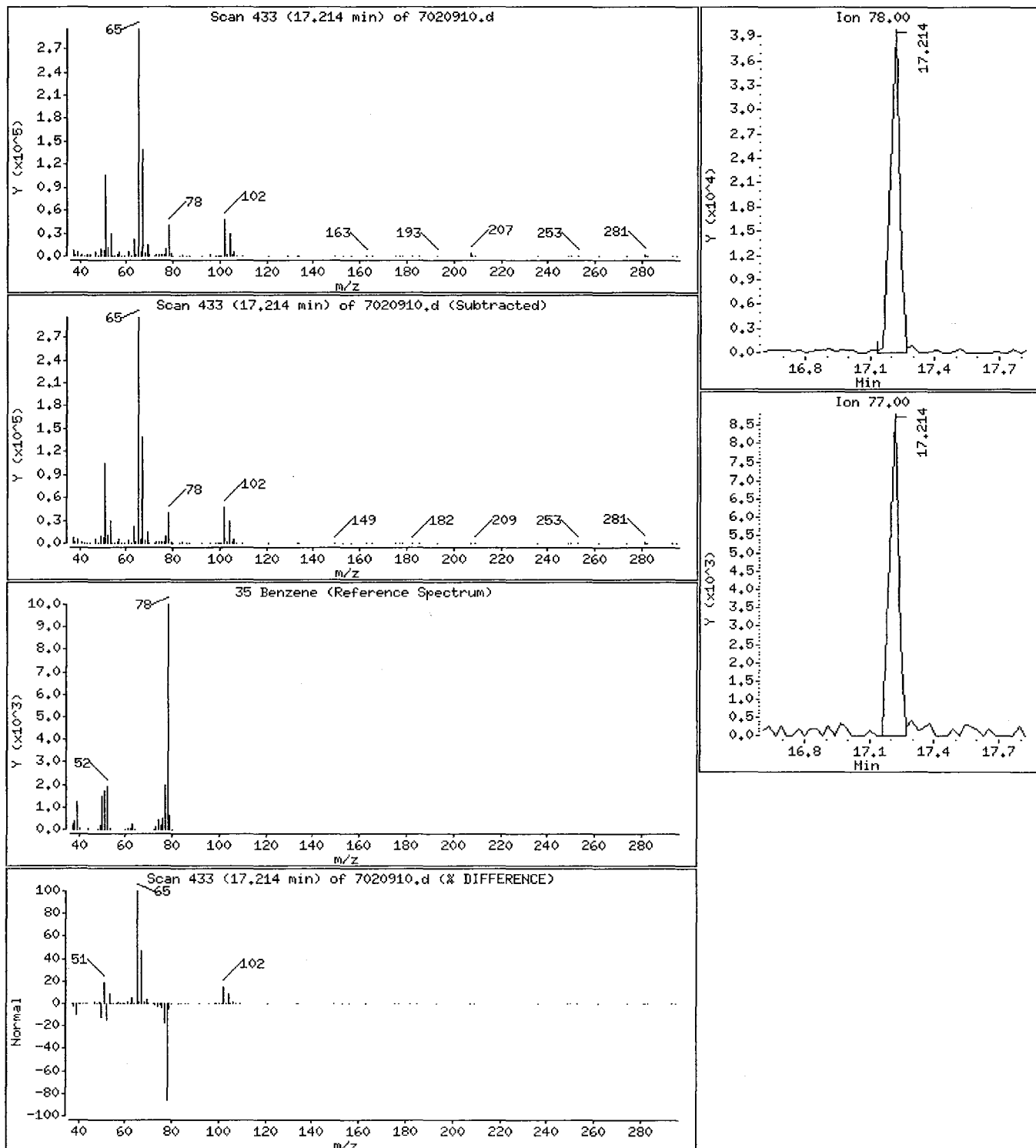
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.6418 PPBV



0544

Date: 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

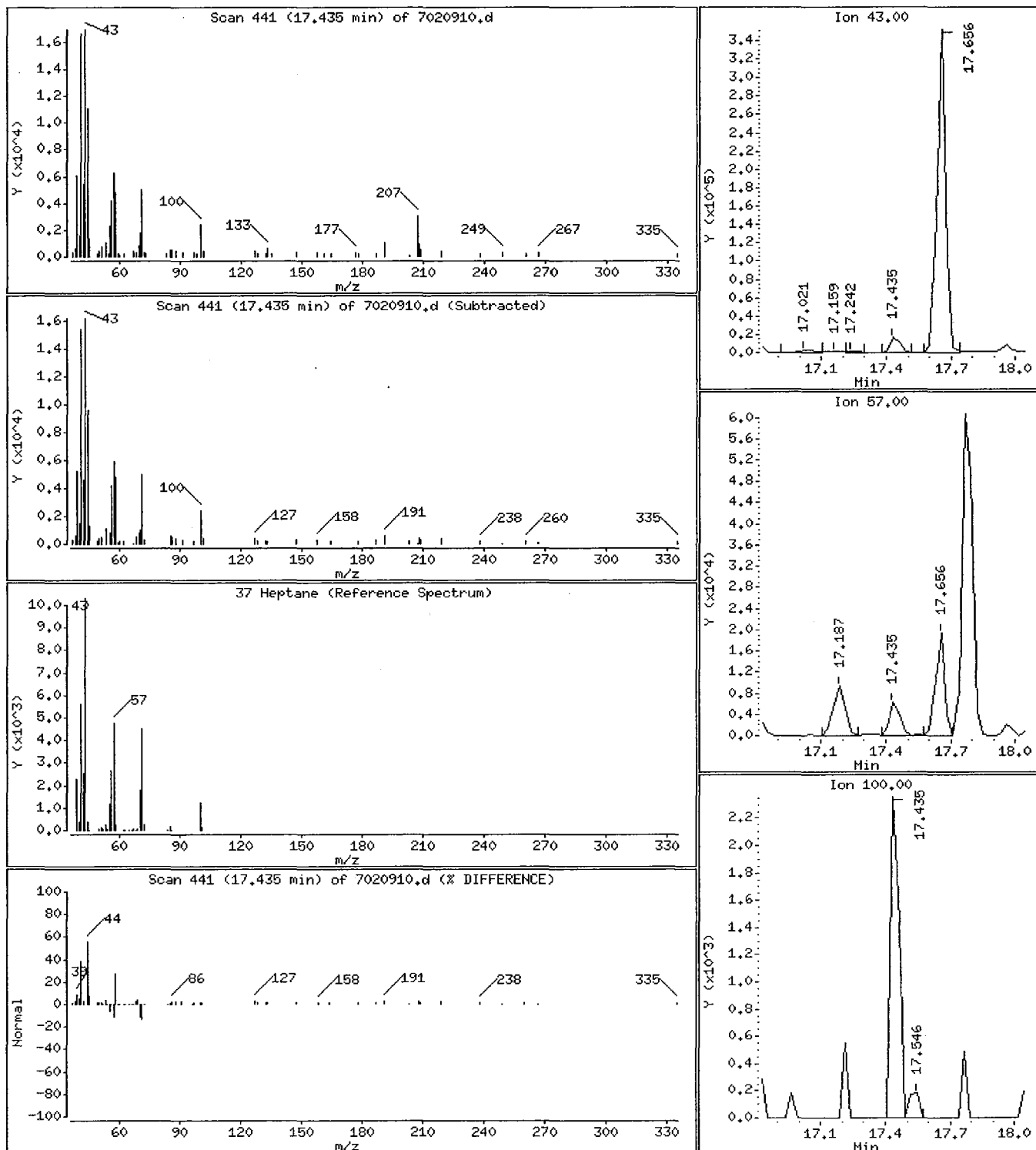
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.4946 PPBV



0545

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

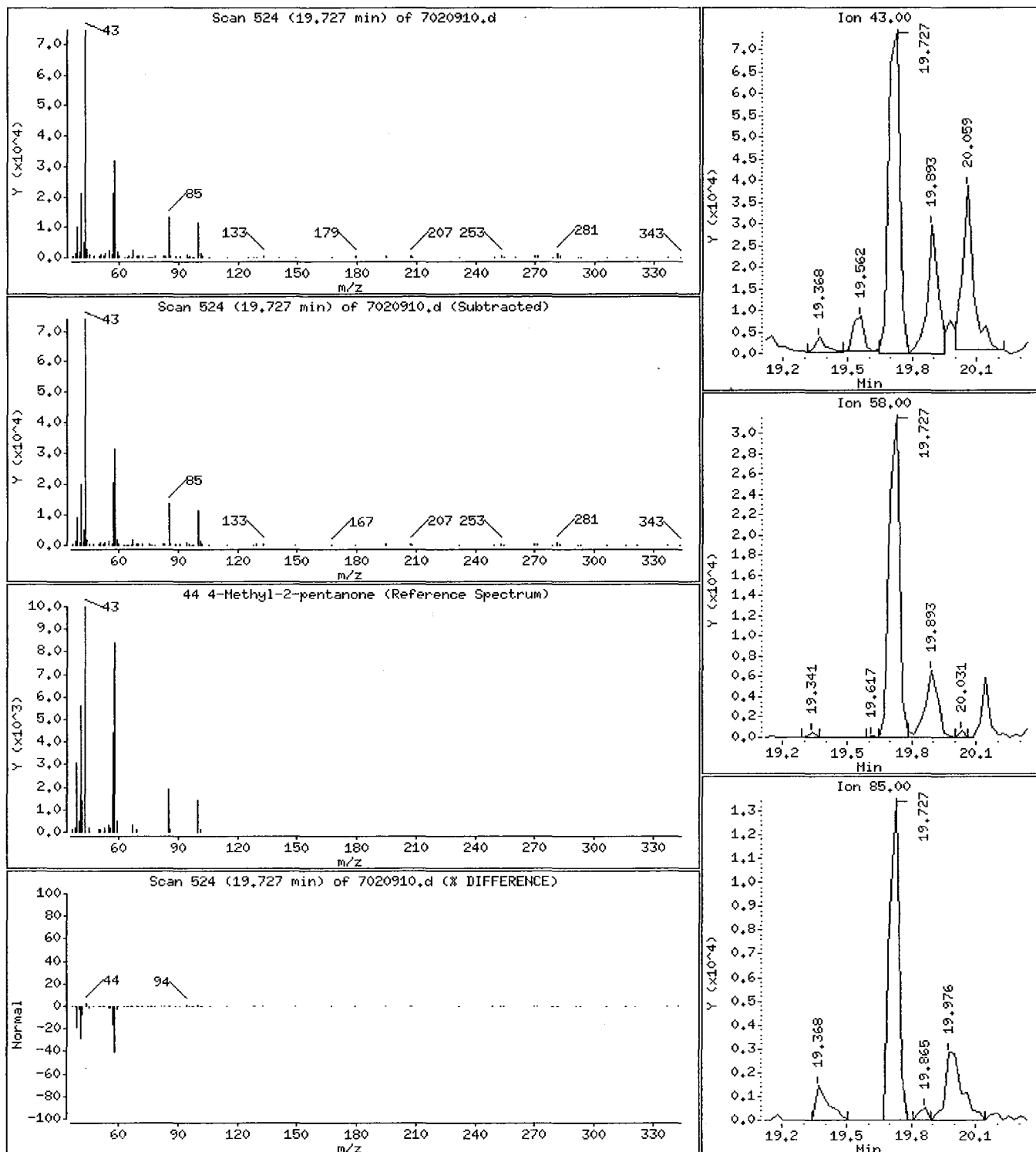
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 2,248 PPBV



0546

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

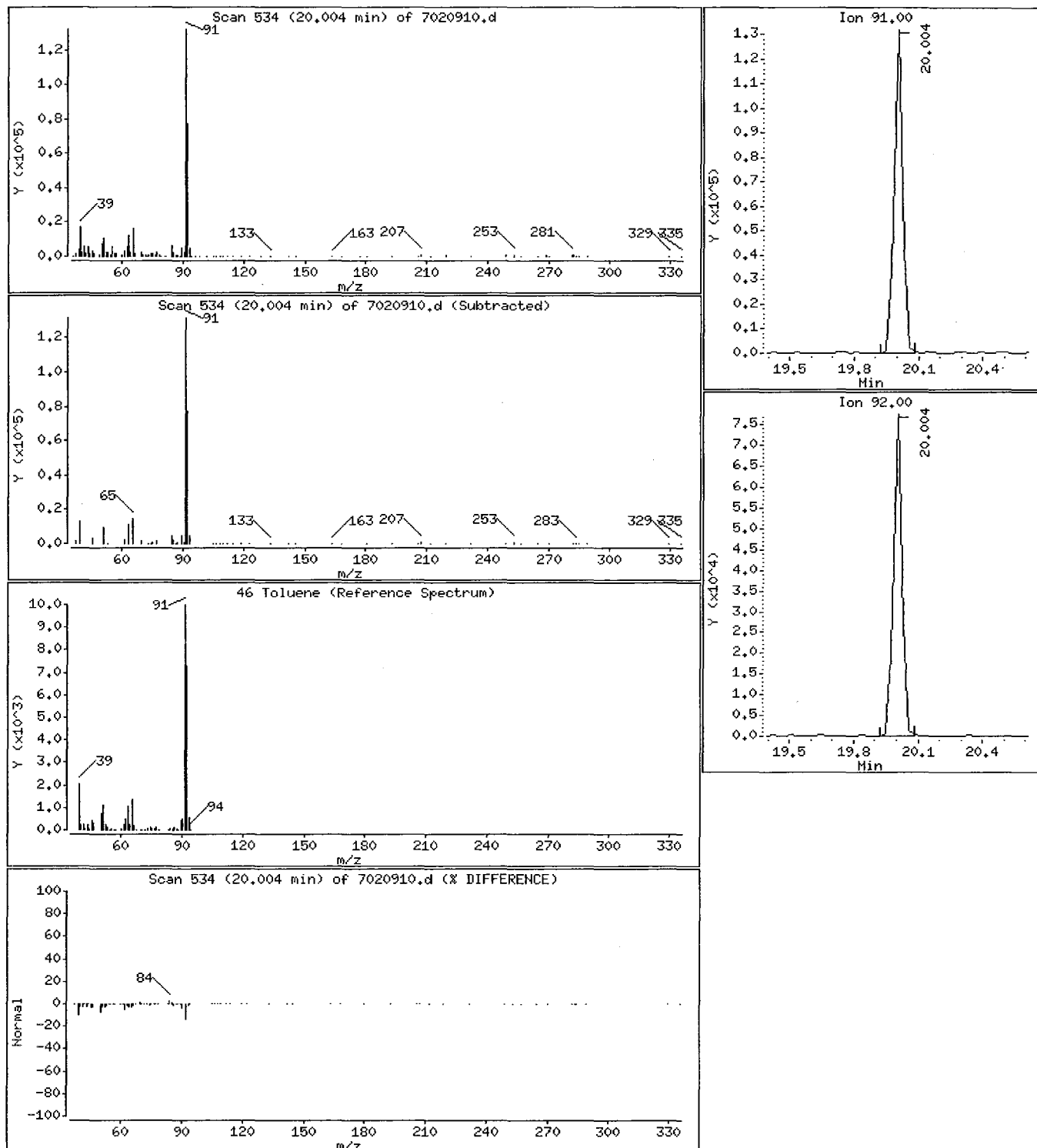
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 1.670 PPBV



0547

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

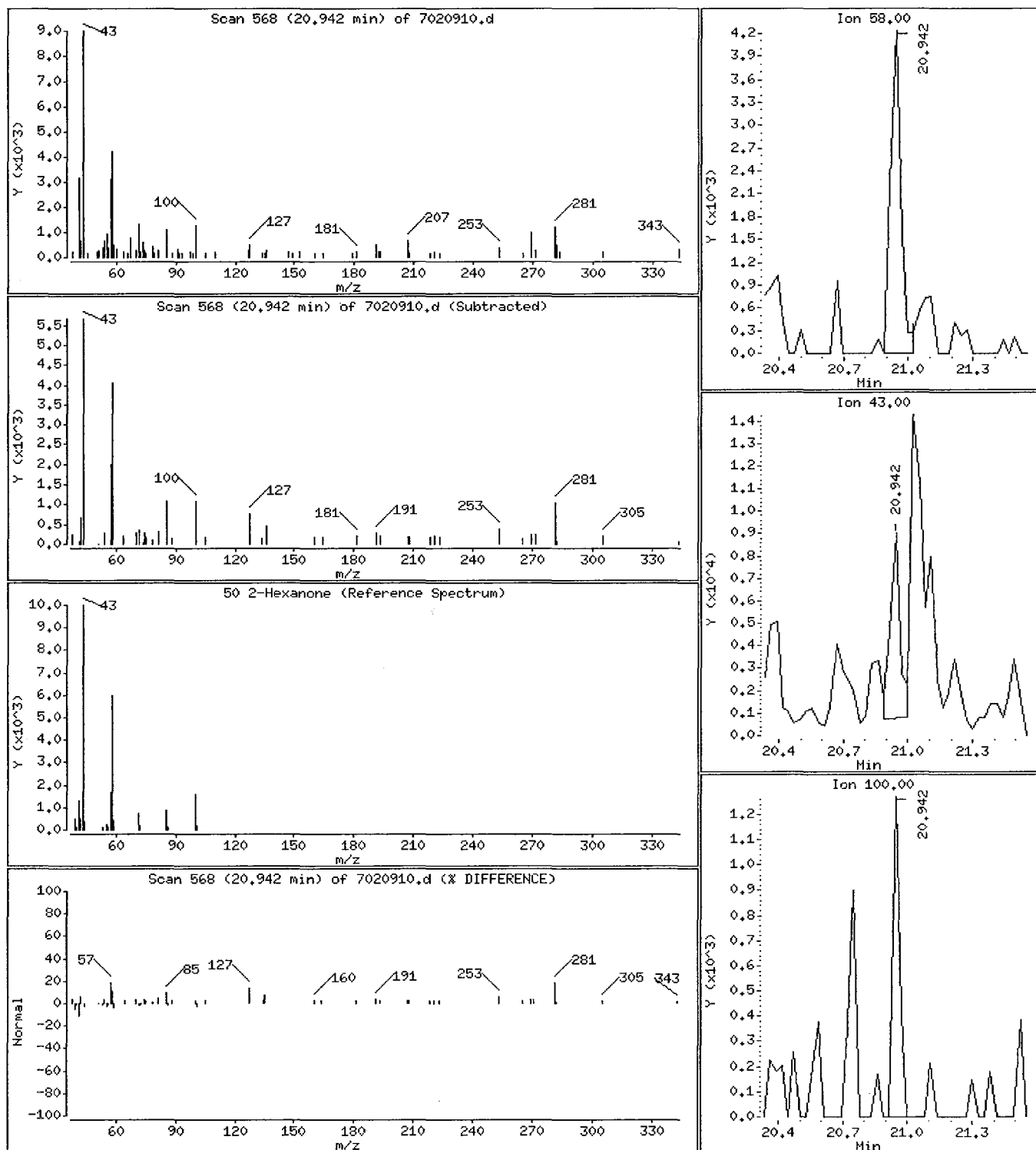
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

50 2-Hexanone

Concentration: 0.2397 PPBV



0548

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

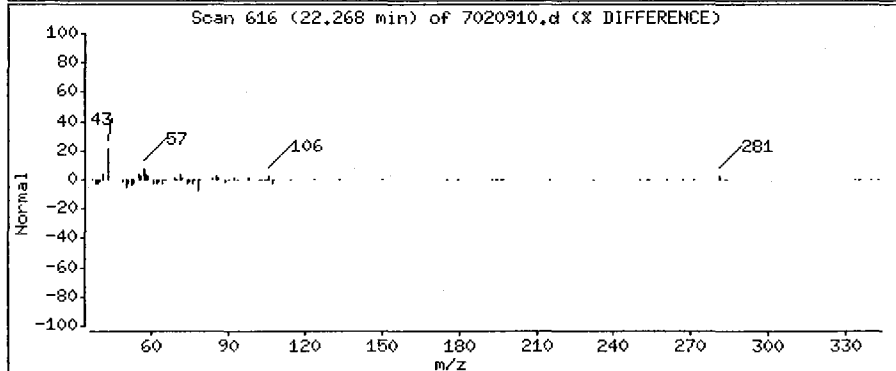
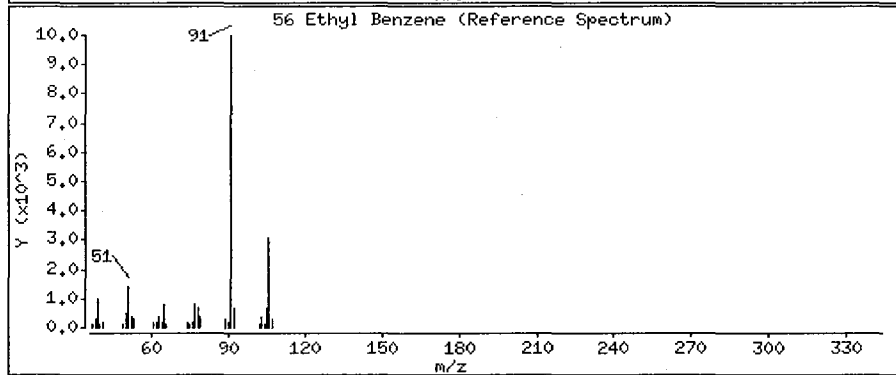
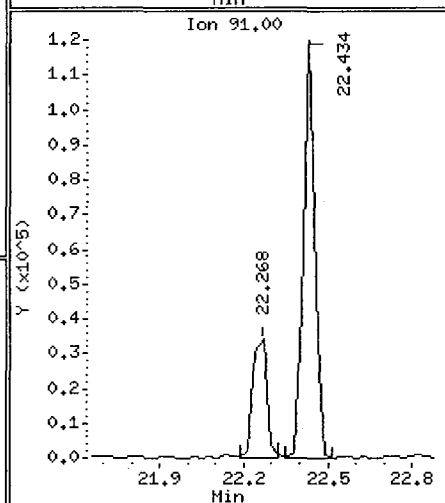
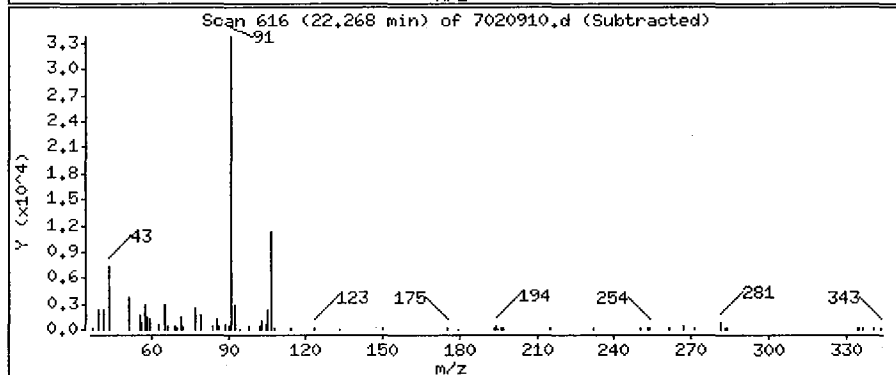
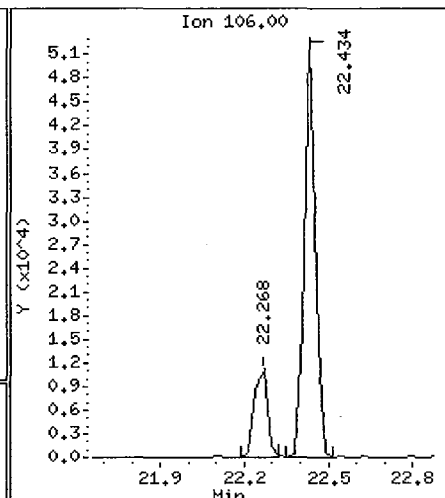
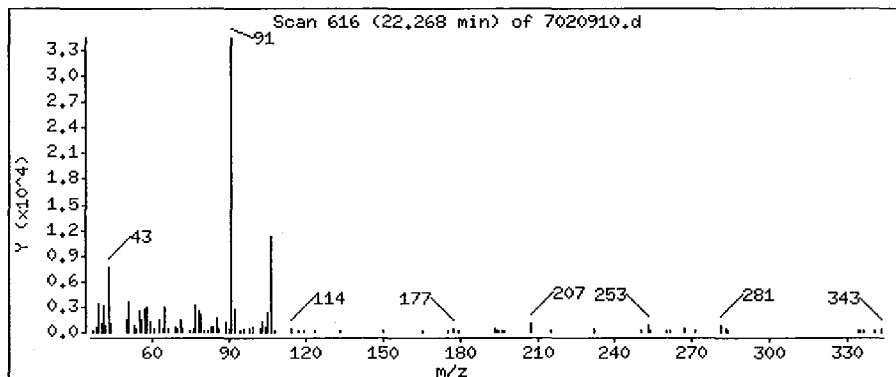
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.4907 PPBV



0549

SCOEPAA00032221

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

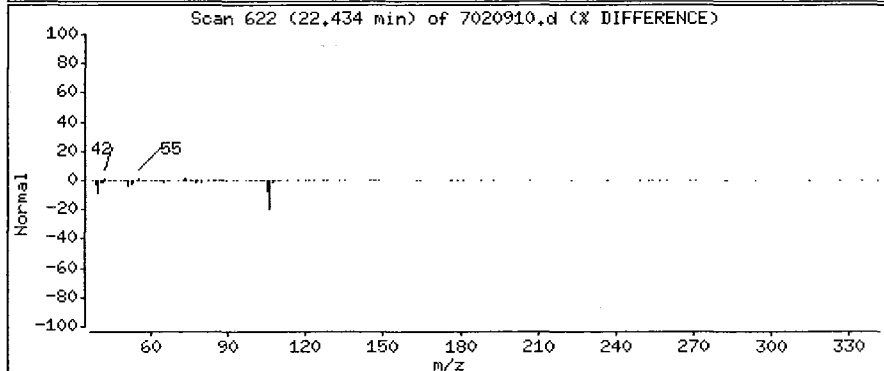
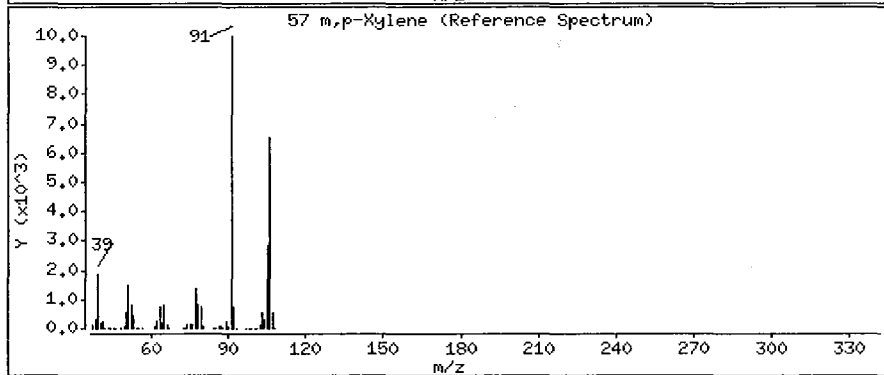
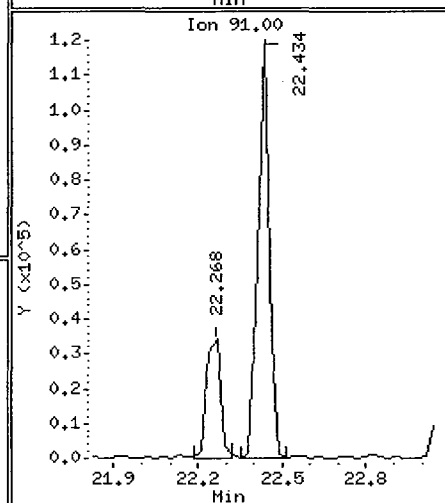
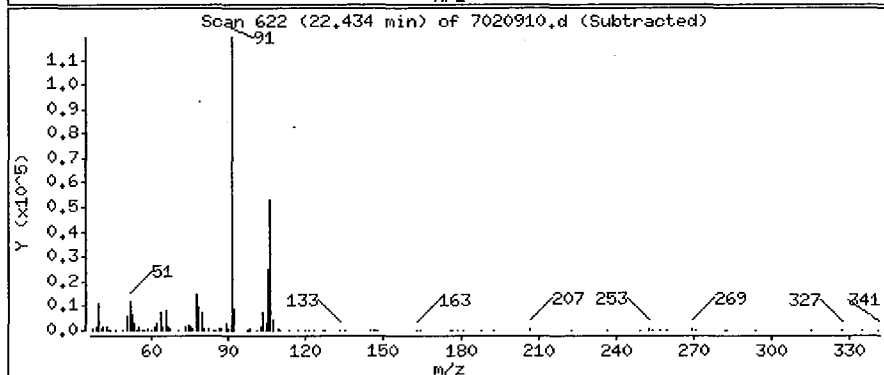
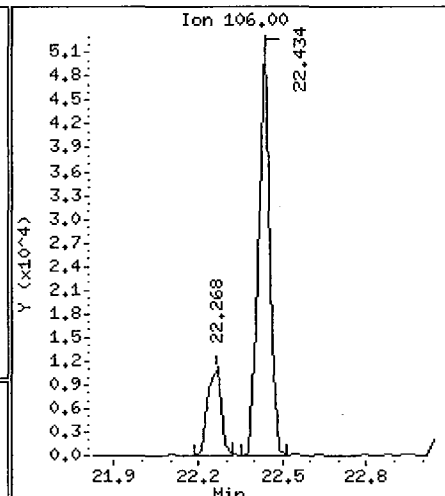
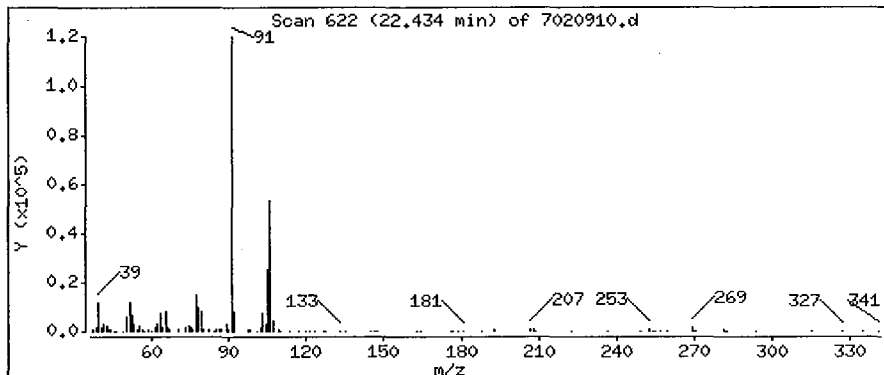
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.553 PPBV



0550

SCOEP00032222

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

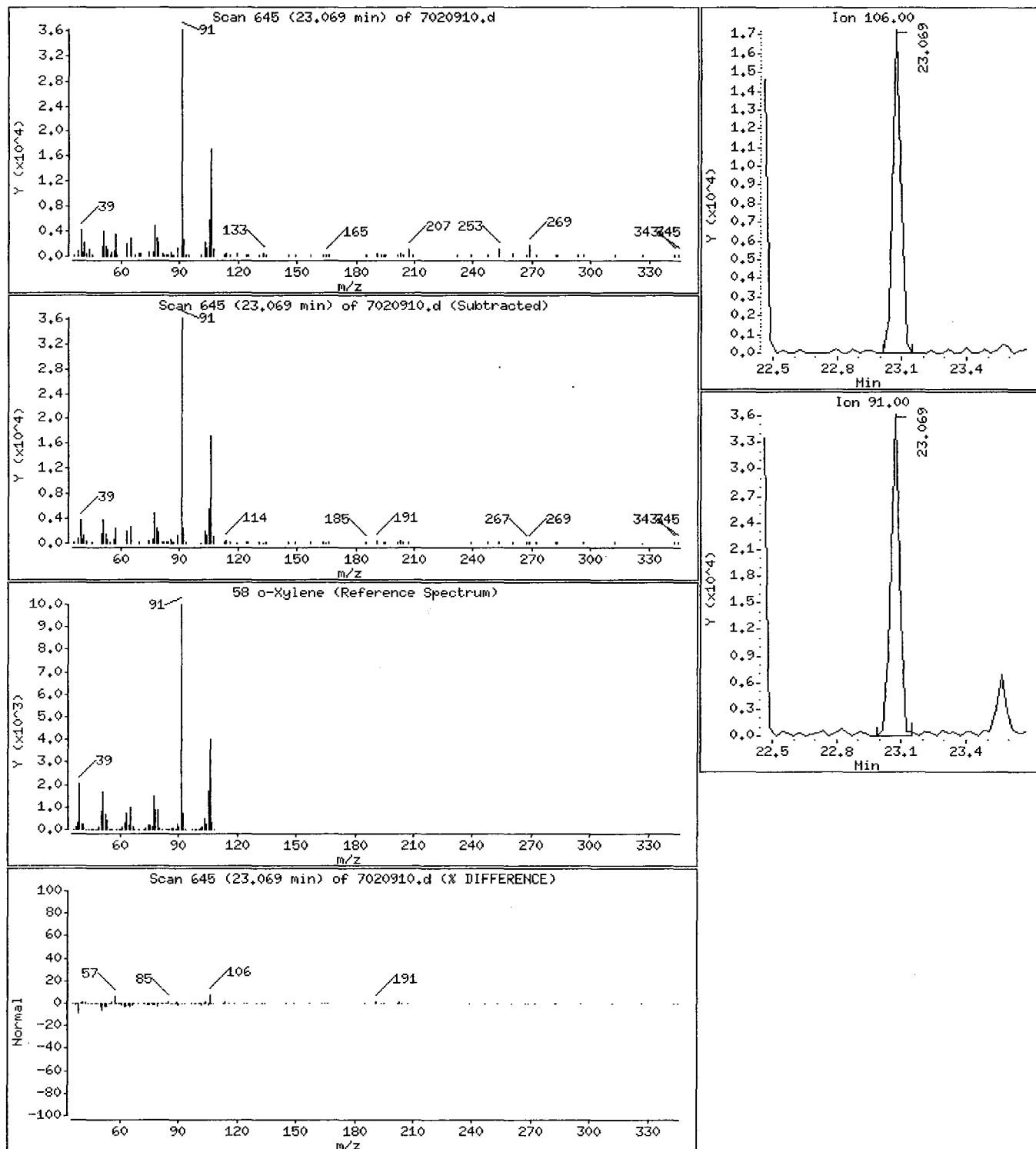
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.6206 PPBV



0551

SCOEP00032223

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

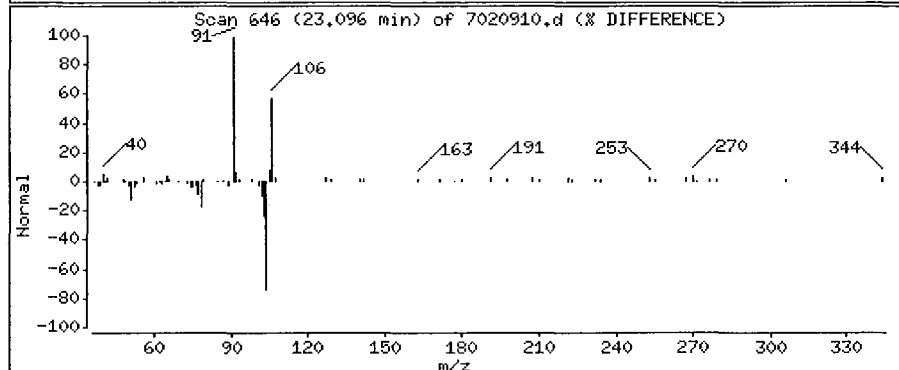
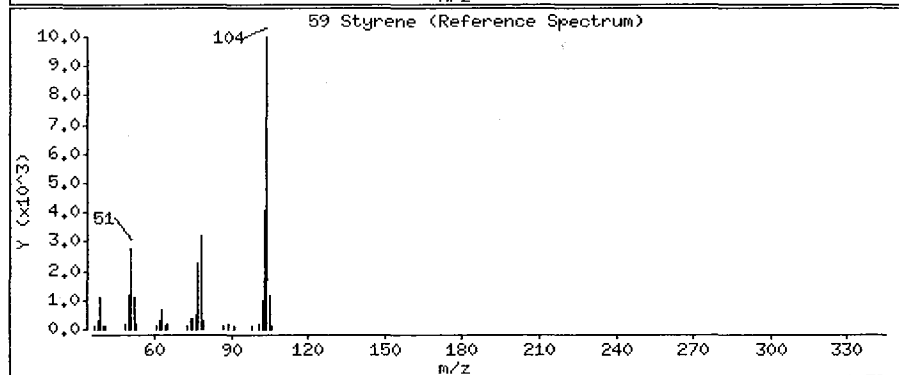
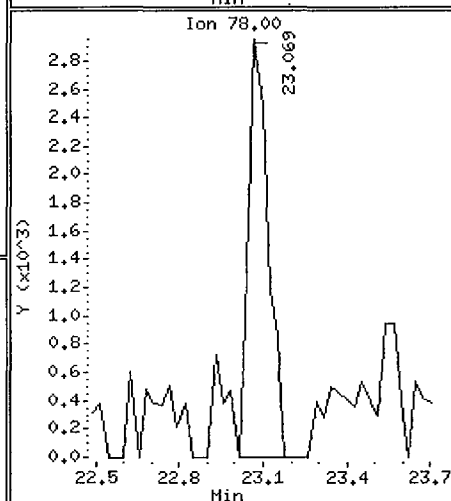
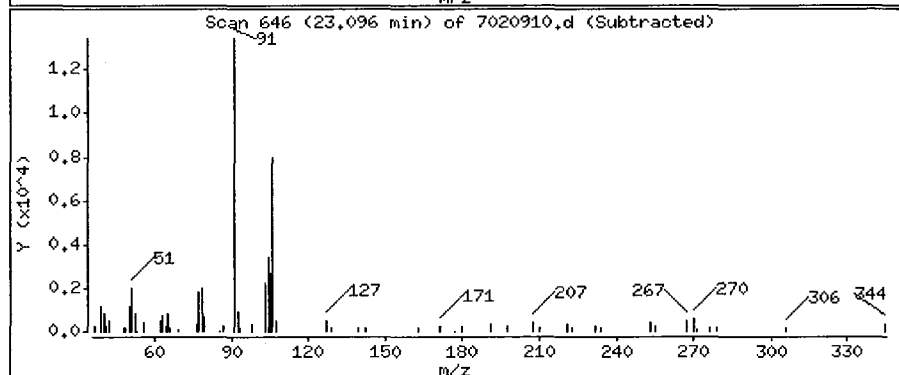
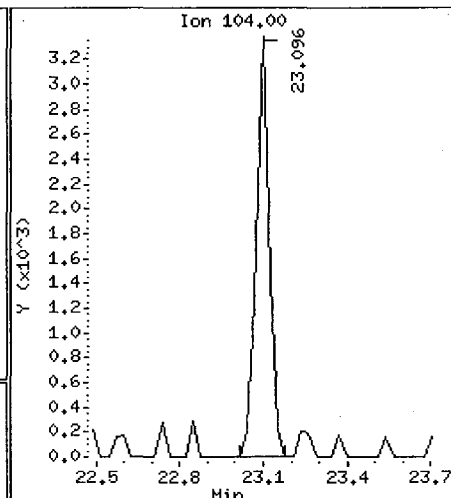
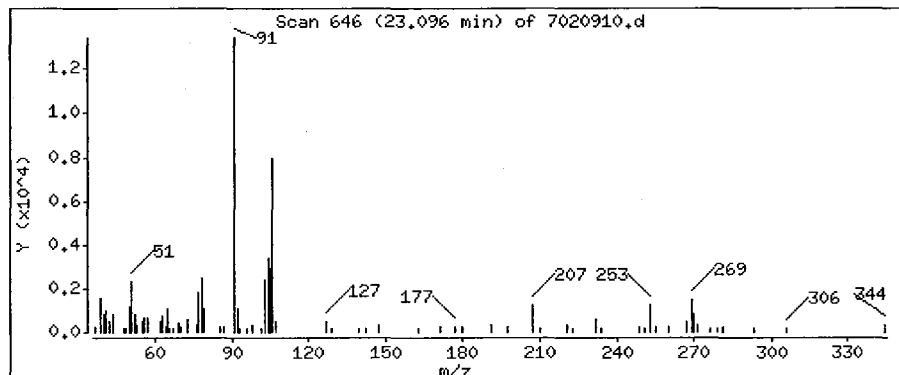
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.09429 PPBV



0552

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

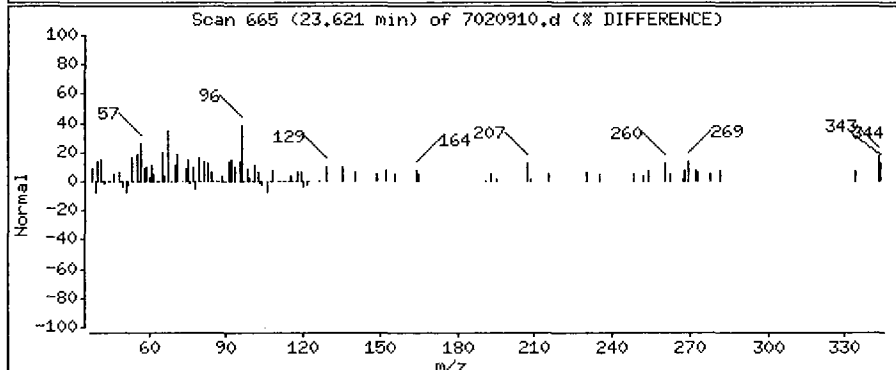
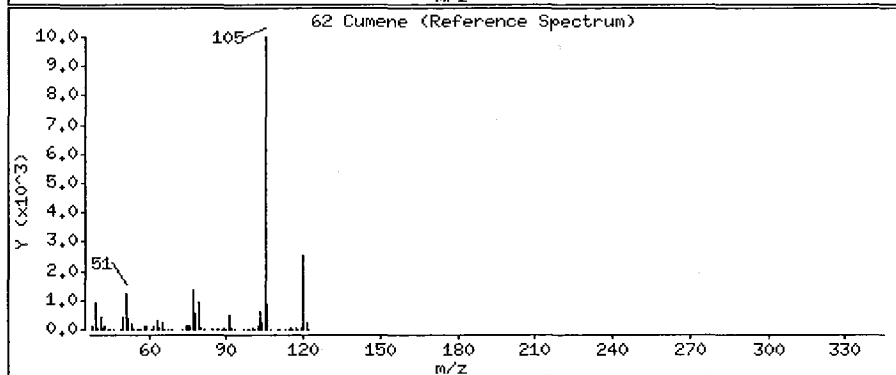
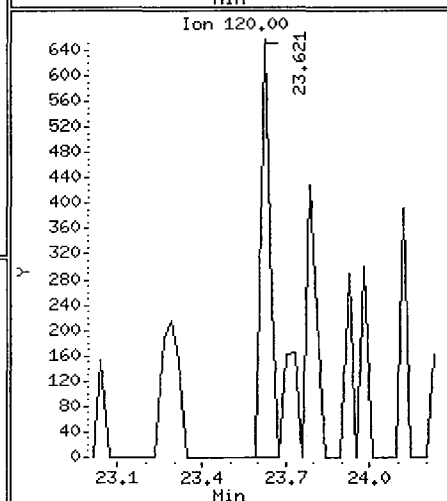
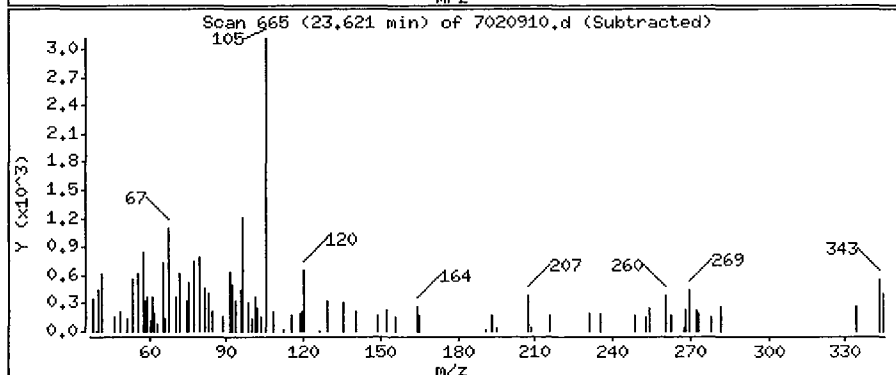
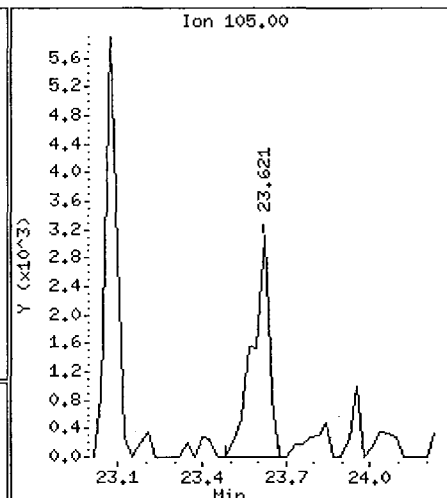
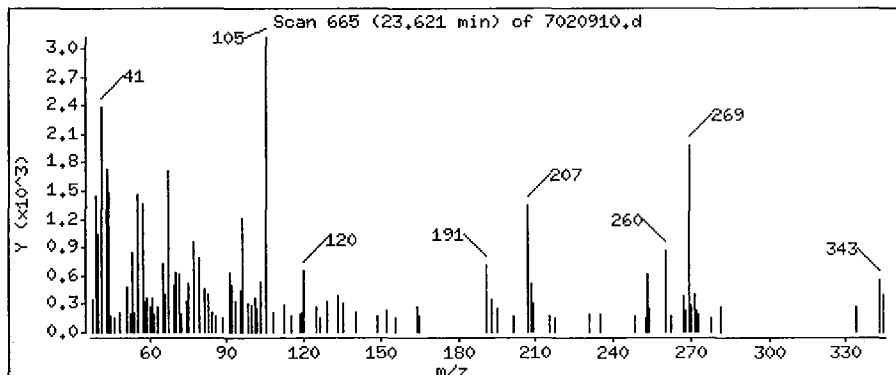
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.07172 PPBV



0553

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

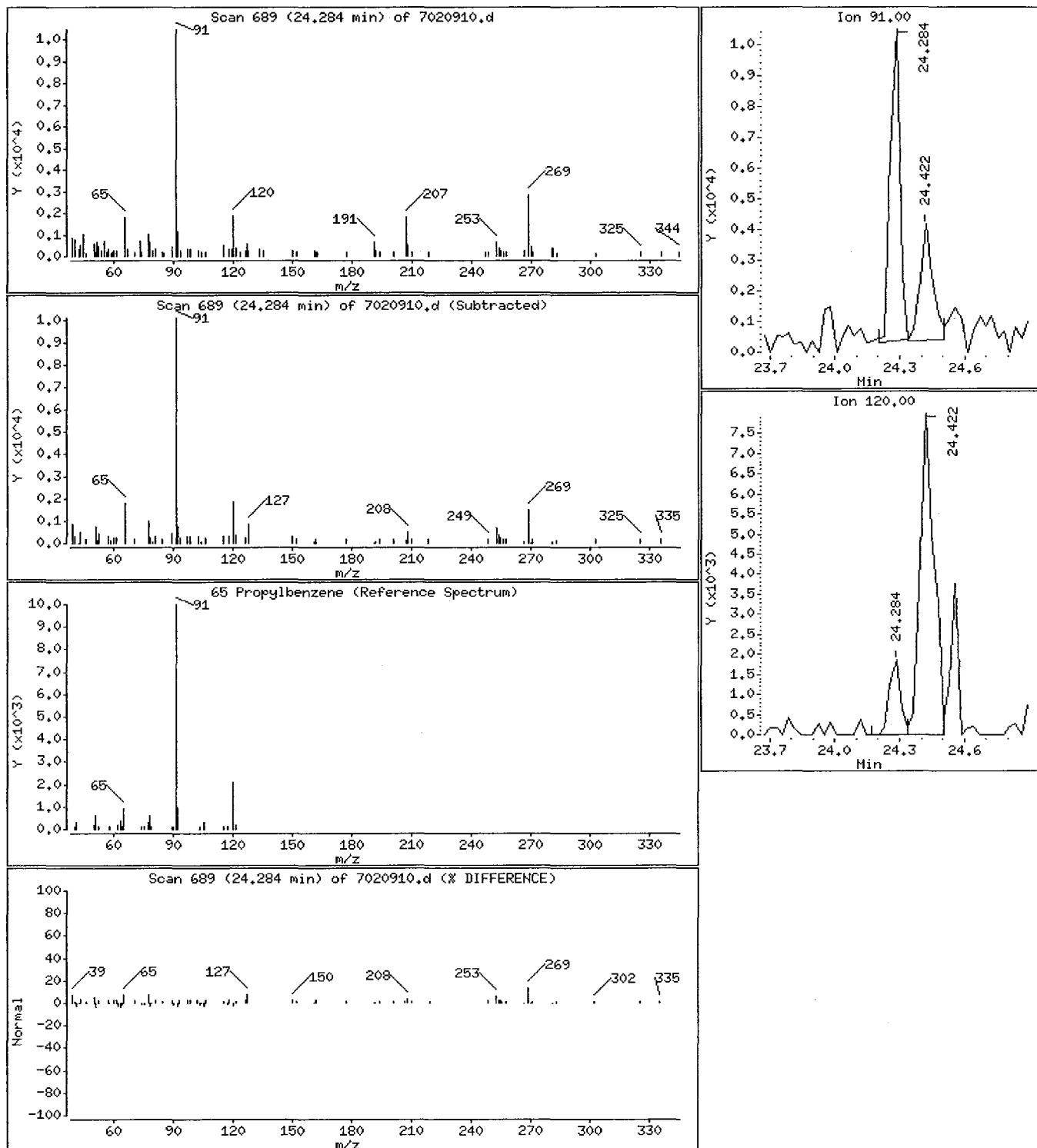
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.1249 PPBV



0554

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

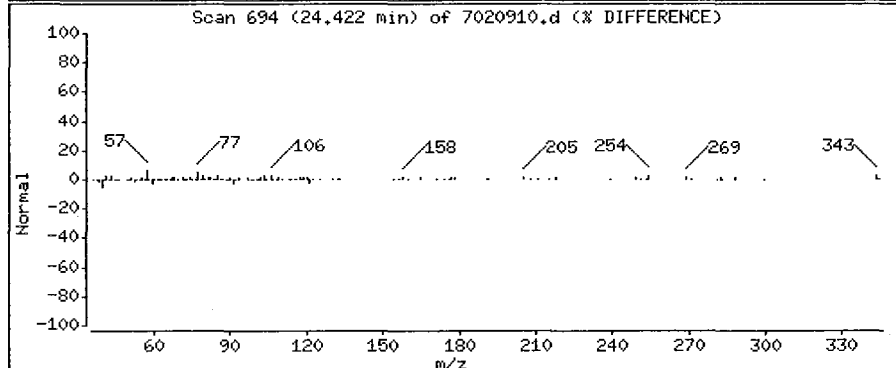
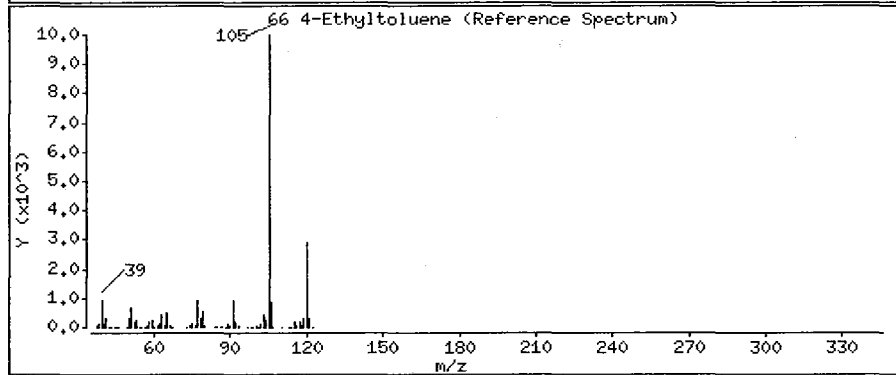
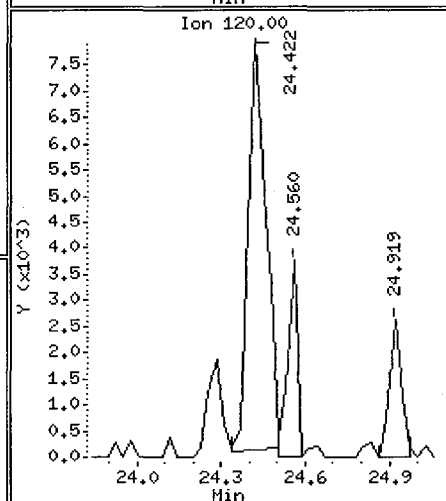
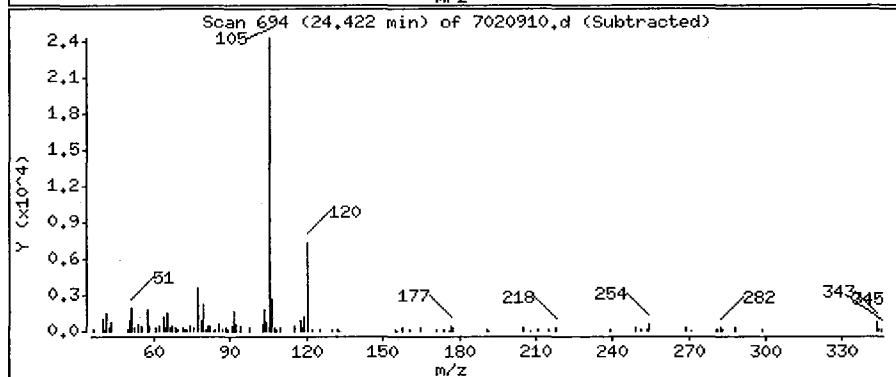
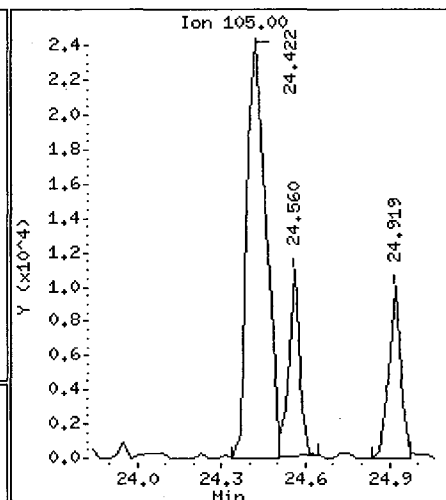
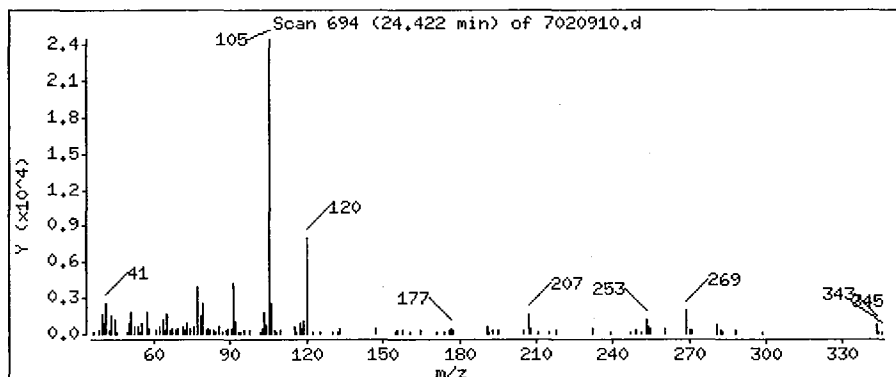
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.5829 PPBV



0555

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

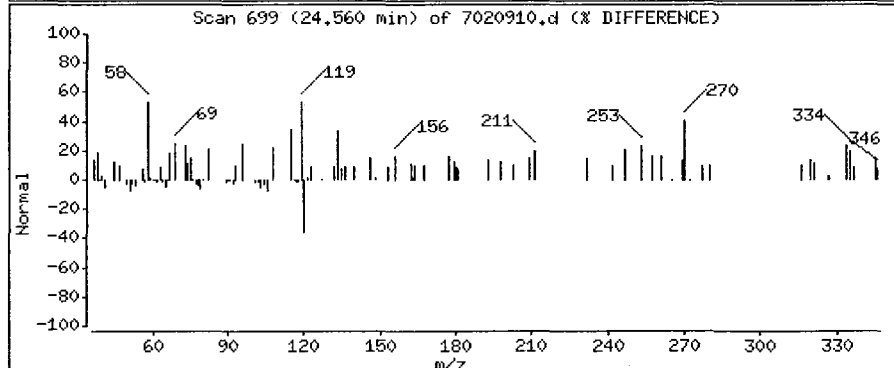
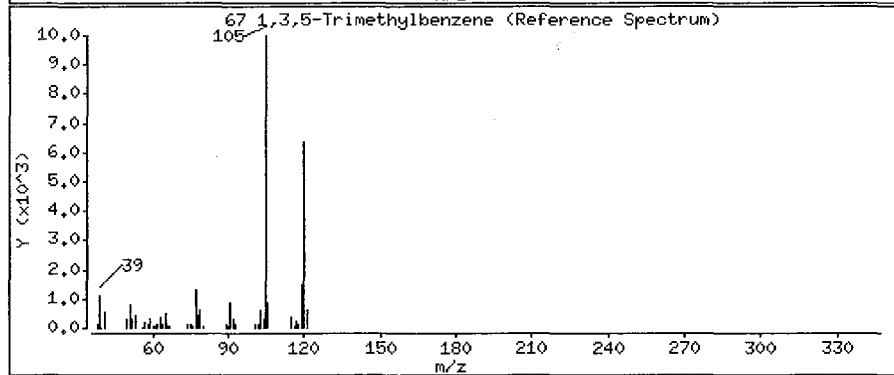
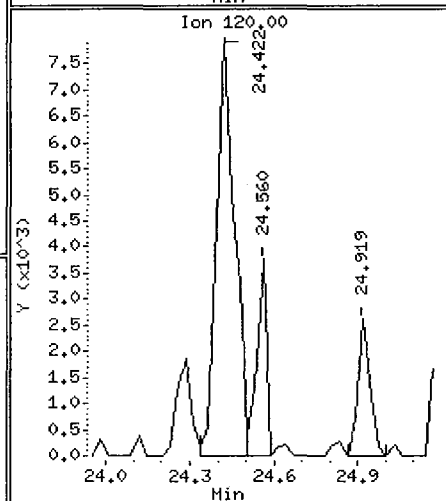
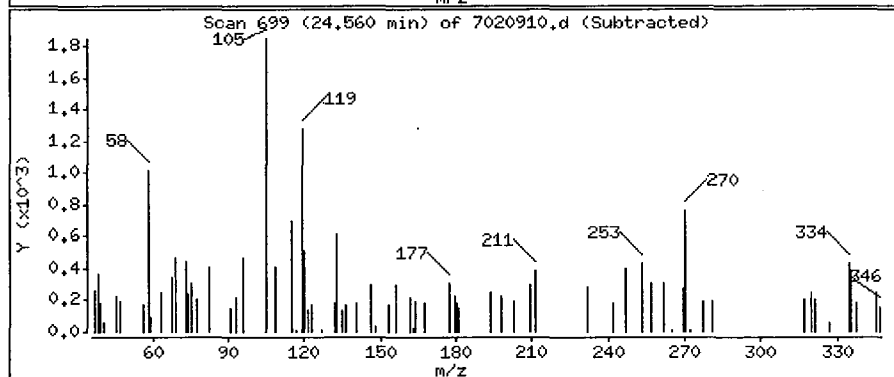
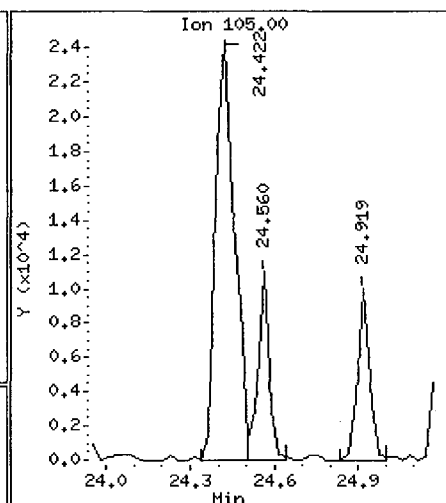
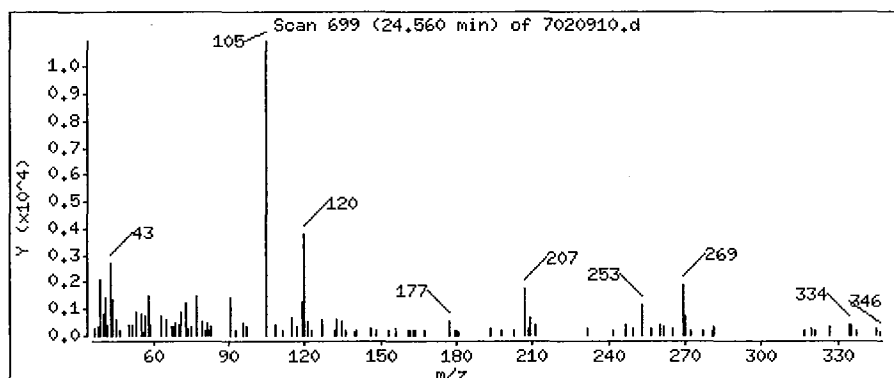
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1740 PPBV



0556

SCOEPAA00032228

Date : 09-FEB-2005 12:57

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34420

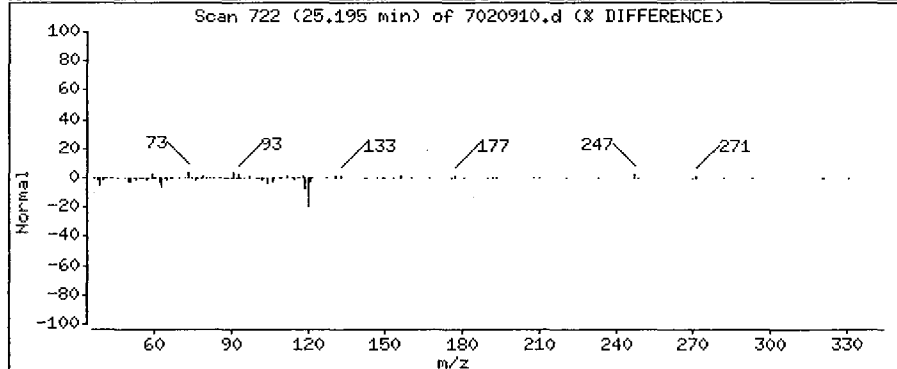
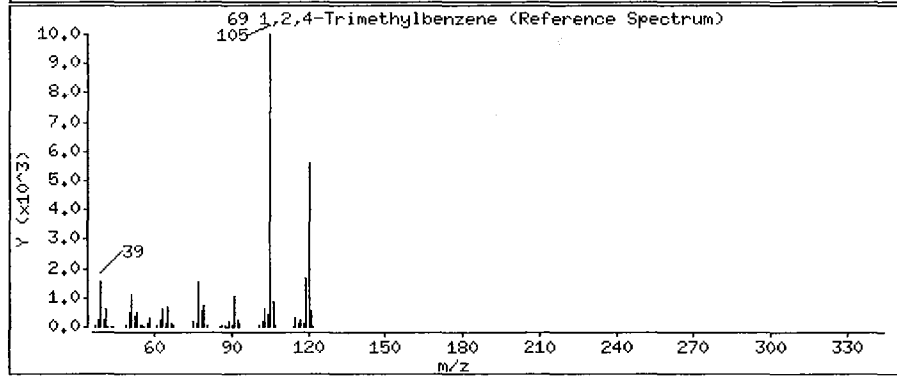
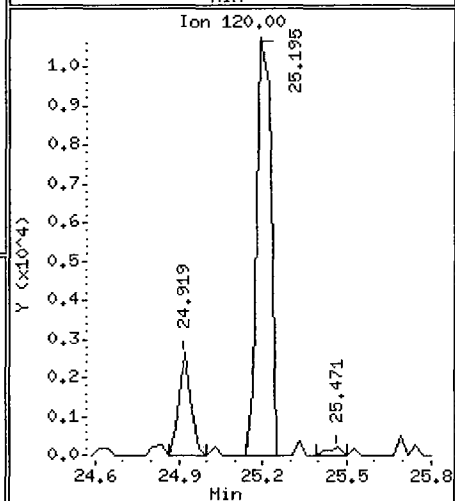
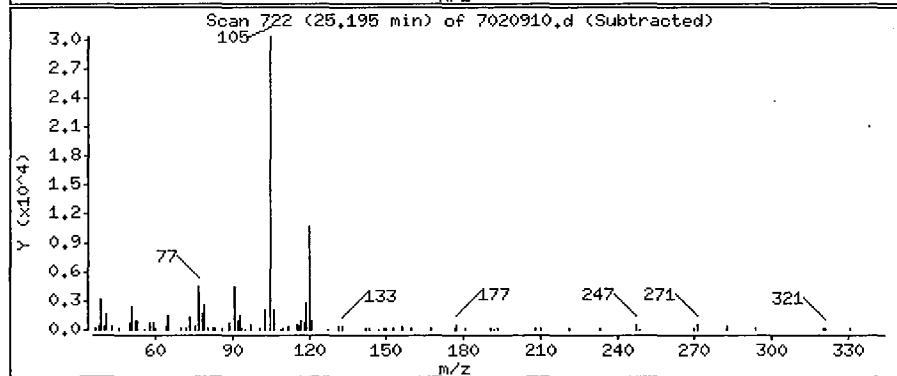
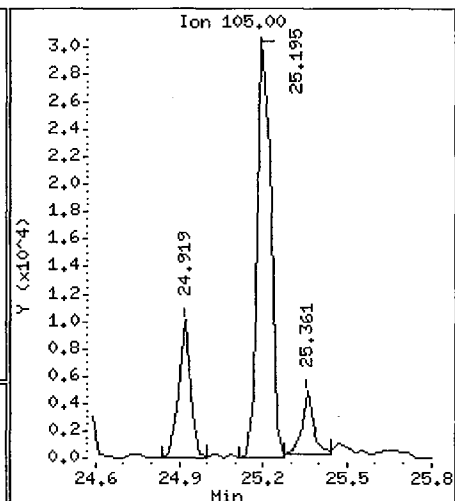
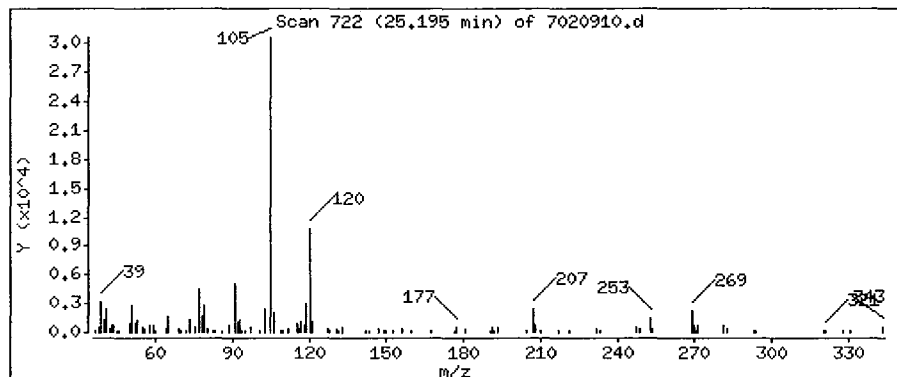
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.5971 PPBV



0557

AIR TOXICS LTD.

SAMPLE NAME: #15, Outside, West of CUB

ID#: 0502032-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020909	Date of Collection:	1/25/05
Dil. Factor:	1.64	Date of Analysis:	2/9/05 12:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.90	0.81	4.5
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.42	0.34	0.88
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Bromomethane	0.16	Not Detected	0.64	Not Detected
Chloroethane	0.16	Not Detected	0.43	Not Detected
Freon 11	0.16	1.5	0.92	8.2
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Carbon Tetrachloride	0.16	0.078 J	1.0	0.49 J
Benzene	0.16	0.98	0.52	3.1
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
Toluene	0.16	2.2	0.62	8.3
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.58	0.71	2.5
m,p-Xylene	0.16	1.6	0.71	7.0
o-Xylene	0.16	0.65	0.71	2.8
Styrene	0.16	0.081 J	0.70	0.34 J
1,1,2,2-Tetrachloroethane	0.16	0.051 J	1.1	0.35 J
1,3,5-Trimethylbenzene	0.16	0.18	0.81	0.90
1,2,4-Trimethylbenzene	0.16	0.61	0.81	3.0
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
Methylene Chloride	0.33	0.40	1.1	1.4
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
1,3-Butadiene	0.82	0.16 J	1.8	0.35 J
Acetone	0.82	6.2	1.9	15
Carbon Disulfide	0.82	3.0	2.6	9.4

AIR TOXICS LTD.

SAMPLE NAME: #15, Outside, West of CUB

ID#: 0502032-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020909	Date of Collection:	1/25/05
Dil. Factor:	1.64	Date of Analysis:	2/9/05 12:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.82	1.6	2.0	4.0
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	2.1	2.4	6.1
Hexane	0.82	0.84	2.9	3.0
Tetrahydrofuran	0.82	0.11 J	2.4	0.31 J
Cyclohexane	0.82	0.43 J	2.8	1.5 J
1,4-Dioxane	0.82	Not Detected	3.0	Not Detected
Bromodichloromethane	0.82	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	0.82	1.1	3.4	4.6
2-Hexanone	0.82	Not Detected	3.4	Not Detected
Dibromochloromethane	0.82	Not Detected	7.0	Not Detected
Bromoform	0.82	Not Detected U J	8.5	Not Detected U J
4-Ethyltoluene	0.82	0.64 J	4.0	3.1 J
Ethanol	0.82	4.4	1.5	8.2
Methyl tert-butyl ether	0.82	Not Detected	3.0	Not Detected
Heptane	0.82	0.52 J	3.4	2.1 J
Cumene	0.82	0.16 J	4.0	0.80 J
Propylbenzene	0.82	0.21 J	4.0	1.0 J
Naphthalene	0.82	Not Detected	4.3	Not Detected

J = Estimated value.

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020909.d
Lab Smp Id: 0502032-15A
Inj Date : 09-FEB-2005 12:17
Operator : ts
Smp Info : 500ml Can# 34335
Misc Info : 5.5"Hg>5psi,Clayton
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 11-Feb-2005 14:39 lsoohoo
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.64000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Compound Sublist: ATmdl.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	442873	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	353184			26.96- 126.96	79.75	
16.331	16.331	(1.000)	49	800282			126.50- 226.50	180.70	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2070236	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	351213			0.00- 67.64	16.96	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1476779	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	873096			9.26- 109.26	59.12	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	979599	10.7395	10.740	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	447935			0.17- 100.17	45.73	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1741338	9.85919	9.859	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	223883			0.00- 62.11	12.86	

0560

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1249815			22.24- 122.24	71.77	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.953	(1.082)	174	801917	10.5116	10.512	80.00- 120.00	100.00	
23.952	23.953	(1.082)	95	1241236			97.68- 197.68	154.78	
23.952	23.953	(1.082)	176	789624			43.78- 143.78	98.47	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	197475	0.55010	0.9022	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	61521			0.00- 81.67	31.15	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	26826	0.25920	0.4251	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	14065			0.00- 84.65	52.43	

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	9210	0.09761	0.1601	80.00- 120.00	100.00(a)	
8.295	8.295	(0.508)	39	14357			48.03- 148.03	155.88	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	279100	0.89412	1.466	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	189305			13.78- 113.78	67.83	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	116257	2.65348	4.352	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	25178			0.00- 76.71	21.66	
12.050	12.050	(0.738)	46	41588			0.00- 90.17	35.77	

16 Acetone						CAS #: 67-64-1			
12.823	12.824	(0.785)	43	882698	3.78247	6.203	80.00- 120.00	100.00	
12.851	12.824	(0.787)	58	233065			0.00- 78.78	26.40	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	220147	0.99805	1.637	80.00- 120.00	100.00	
13.238	13.238	(0.811)	43	52694			0.00- 69.75	23.94	
13.238	13.238	(0.811)	59	7481			0.00- 53.72	3.40	

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	532927	1.83866	3.015	80.00- 120.00	100.00	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	22474	0.24335	0.3991	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	32097			111.57- 211.57	142.82	
13.735	13.735	(0.841)	51	9599			0.00- 93.42	42.71	

0561

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	89708	0.51263	0.8407	80.00- 120.00	100.00	
14.563	14.563	(0.892)	43	94270			15.23- 115.23	105.09	
14.563	14.563	(0.892)	86	15133			0.00- 65.23	16.87	
28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	60753	1.25629	2.060	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	319892			1046.10-1146.10	526.55	
15.972	15.972	(0.978)	57	24384			0.00- 89.21	40.14	
23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	8687	0.06473	0.1062	80.00- 120.00	100.00(a)	
16.303	16.331	(0.998)	71	3095			0.00- 82.39	35.63	
16.358	16.331	(1.002)	72	2548			0.00- 86.54	29.33	
31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	25410	0.26261	0.4307	80.00- 120.00	100.00(a)	
16.662	16.662	(1.020)	56	105275			93.37- 193.37	414.31	
16.662	16.662	(1.020)	41	67201			30.80- 130.80	264.47	
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	7600	0.04779	0.07837	80.00- 120.00	100.00(a)	
16.883	16.883	(1.034)	117	9731			62.01- 162.01	128.04	
35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	179903	0.59878	0.9820	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	38666			0.00- 72.07	21.49	
37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	55331	0.31541	0.5173	80.00- 120.00	100.00(a)	
17.435	17.435	(0.980)	57	25400			1.42- 101.42	45.91	
17.435	17.435	(0.980)	100	8774			0.00- 66.93	15.86	
44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	131452	0.67735	1.111	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	51146			0.00- 87.49	38.91	
19.727	19.727	(1.109)	85	21579			0.00- 66.91	16.42	
46 Toluene						CAS #: 108-88-3			
20.003	20.004	(1.124)	91	464838	1.35045	2.215	80.00- 120.00	100.00	
20.003	20.004	(1.124)	92	279342			11.18- 111.18	60.09	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	43247	0.35668	0.5850	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	125510			294.68- 394.68	290.22	

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	146319	0.98668	1.618	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	349597			168.06- 268.06	238.93	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	47799	0.39579	0.6491	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	108153			186.48- 286.48	226.27	

59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	9196	0.04919	0.08067	80.00- 120.00	100.00(a)	
23.096	23.096	(1.044)	78	16662			6.37- 106.37	181.19	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	29048	0.09908	0.1625	80.00- 120.00	100.00(a)	
23.621	23.621	(1.067)	120	5911			0.00- 70.65	20.35	

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
24.118	24.146	(1.090)	83	4504	0.03133	0.05137	80.00- 120.00	100.00(a)	
24.146	24.146	(1.091)	85	502			15.24- 115.24	11.15	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	52485	0.13009	0.2134	80.00- 120.00	100.00(a)	
24.284	24.284	(1.097)	120	11419			0.00- 69.13	21.76	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.422	24.450	(1.104)	105	125173	0.38900	0.6380	80.00- 120.00	100.00(a)	
24.422	24.450	(1.104)	120	32729			0.00- 73.94	26.15	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	31974	0.11200	0.1837	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	7882			0.00- 88.64	24.65	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	101086	0.37013	0.6070	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	37491			0.00- 87.09	37.09	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0563

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i Calibration Date: 09-FEB-2005
Lab File ID: 7020909.d Calibration Time: 00:48
Lab Smp Id: 0502032-15A
Analysis Type: VOA Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: ts
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 5.5"Hg>5psi,Clayton

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	442873	-6.68
38 1,4-Difluorobenze	2234295	1340577	3128013	2070236	-7.34
54 Chlorobenzene-d5	1557243	934346	2180140	1476779	-5.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0564

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 0502032-15A
Level: LOW Operator: ts
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: ATmdl.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 5.5"Hg>5psi,Clayton

SURROGATE COMPOUND	CONC	CONC	%	LIMITS
	ADDED PPBV	RECOVERED PPBV	RECOVERED	
\$ 34 1,2-Dichloroethane	10.000	10.740	107.40	70-130
\$ 45 Toluene-d8	10.000	9.859	98.59	70-130
\$ 63 Bromofluorobenzene	10.000	10.512	105.12	70-130

0565

SCOEPA00032237

Date : 09-FEB-2005 12:17

Client ID:

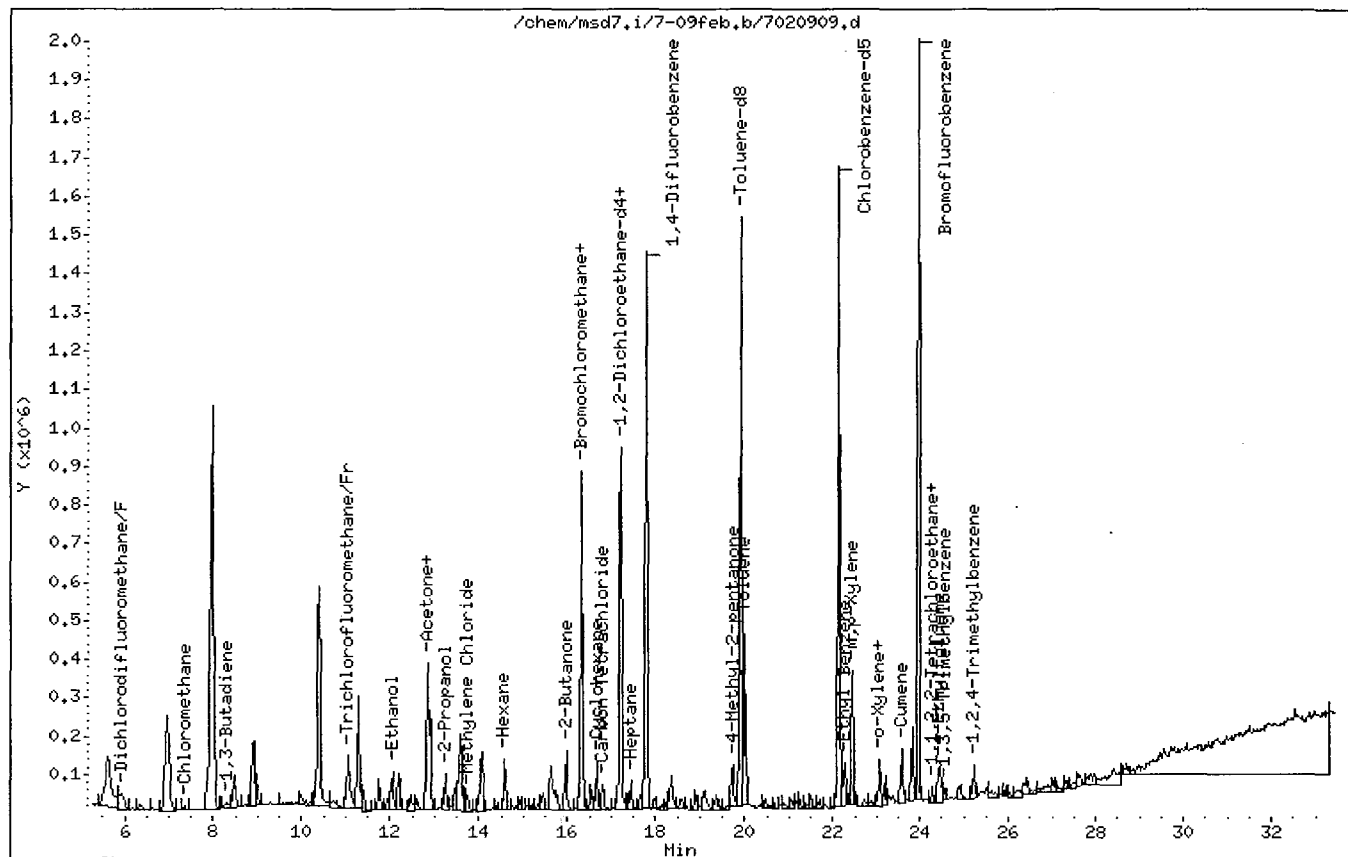
Instrument: msd7.i

Sample Info: 500ml Can# 34335

Operator: ts

Column phase: RTX-624

Column diameter: 0.32



0566

SCOEP00032238

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

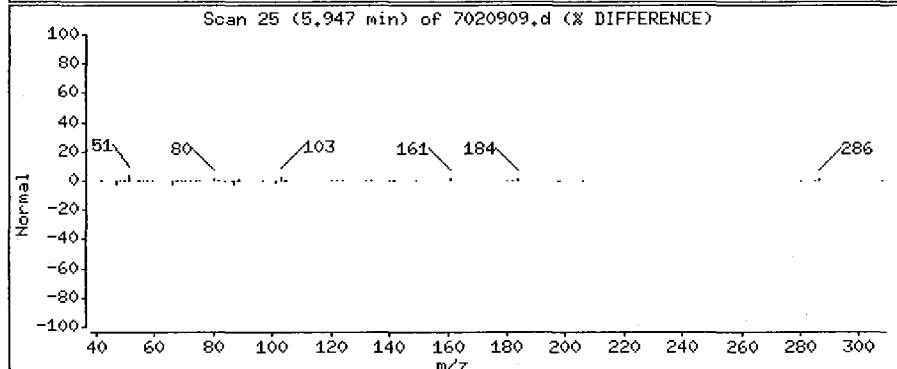
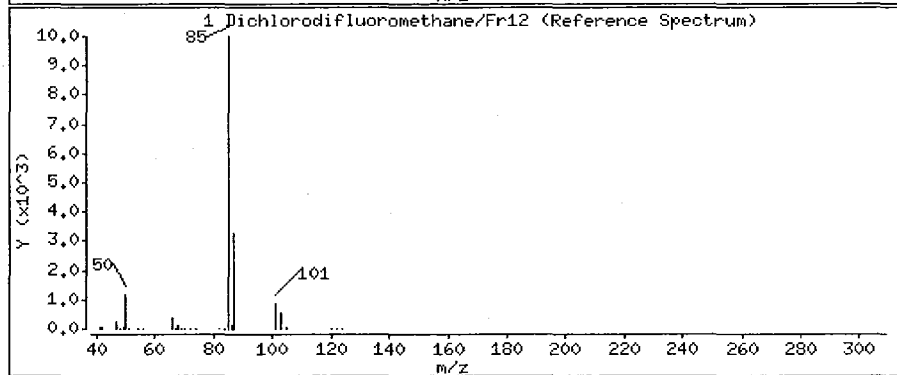
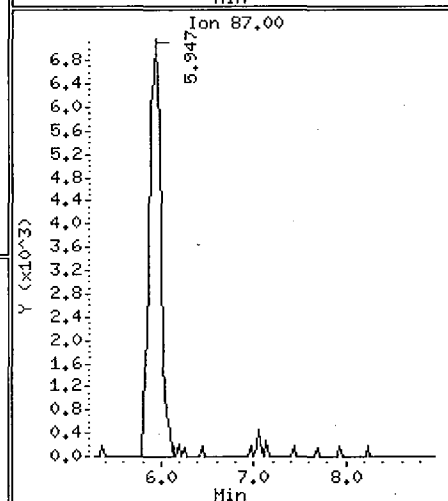
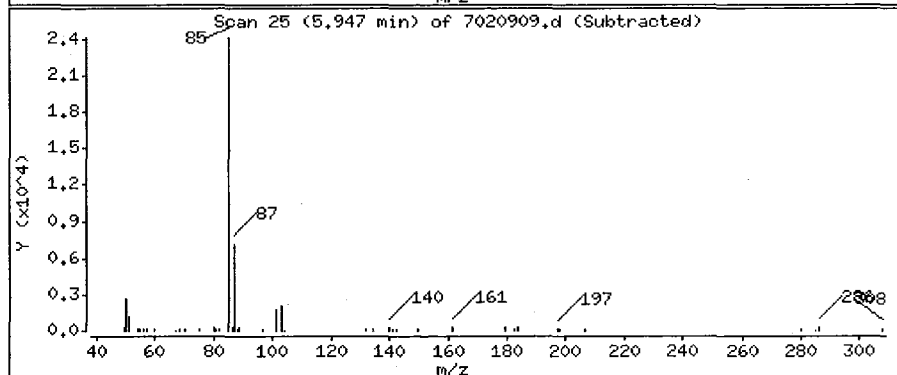
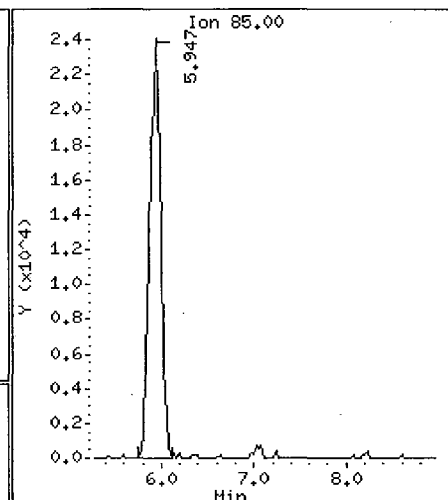
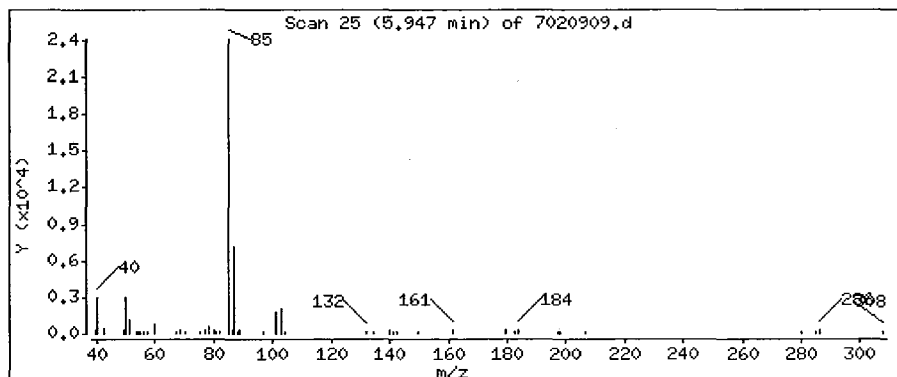
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 0.9022 PPBV



0567

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

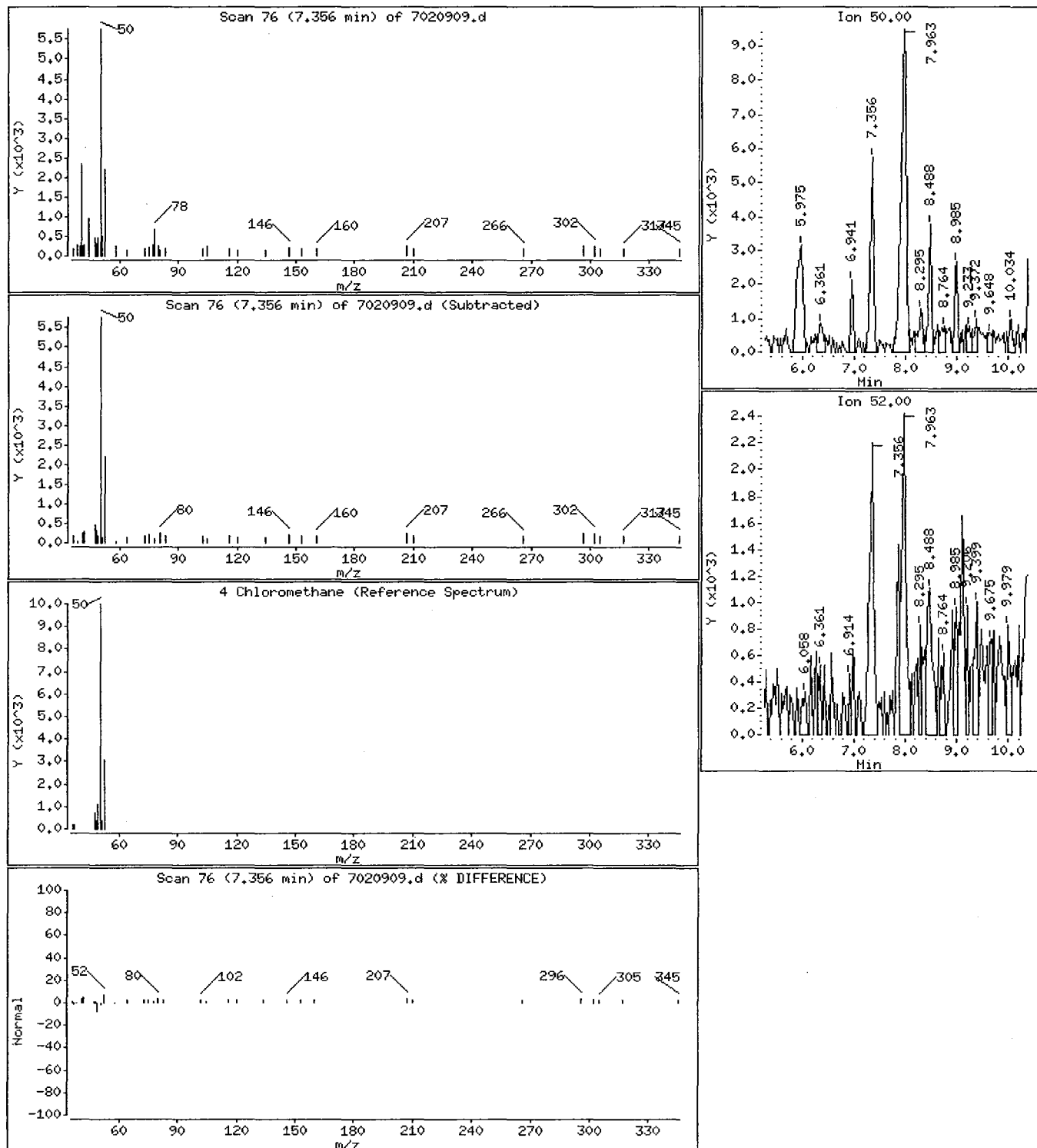
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 0.4251 PPBV



0568

Data File: /chem/msd7.i/7-09feb.b/7020909.d

Page 4

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

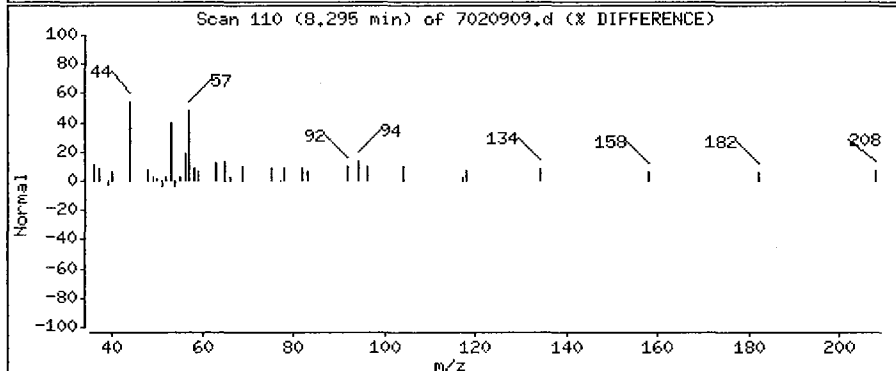
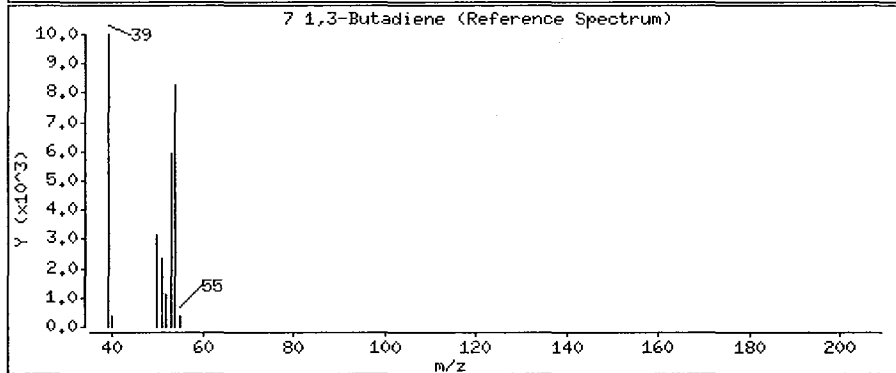
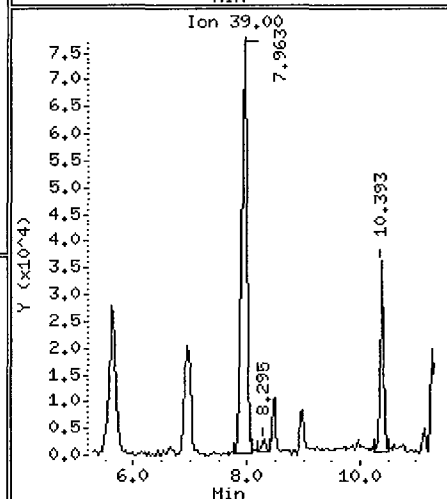
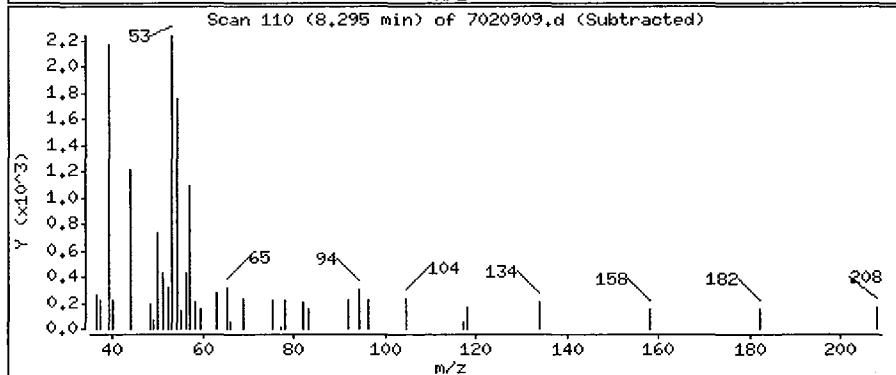
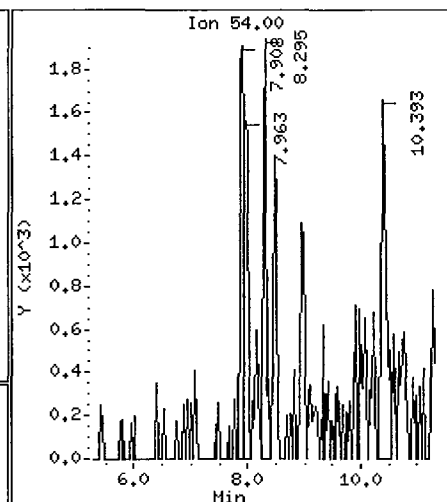
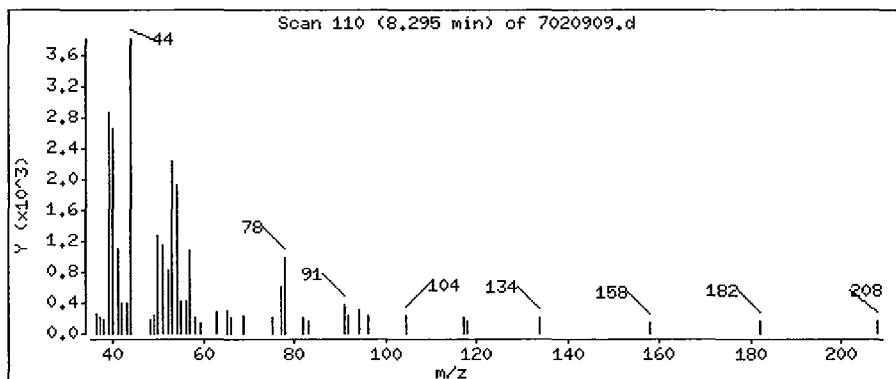
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 0.1601 PPBV



0569

SCOEPA00032241

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

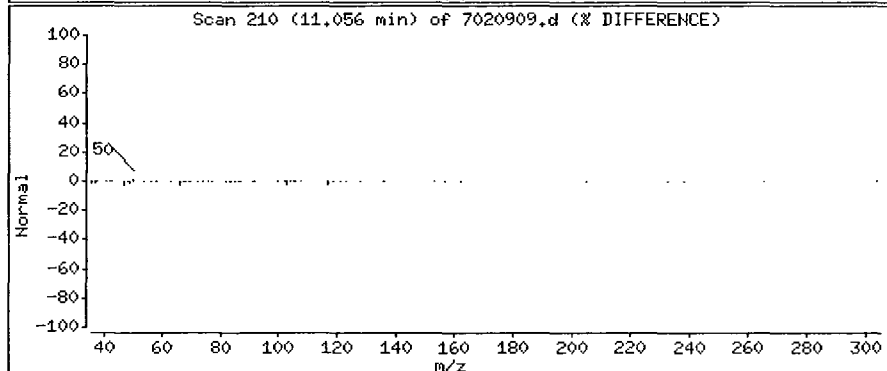
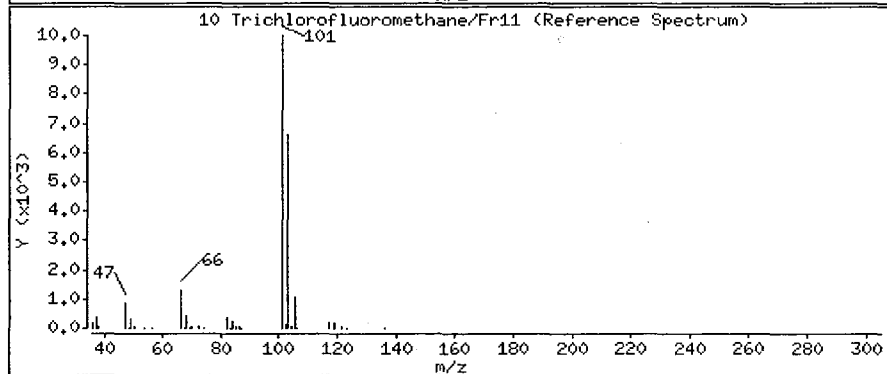
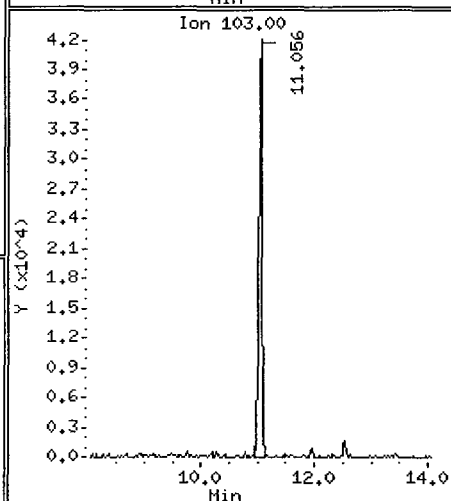
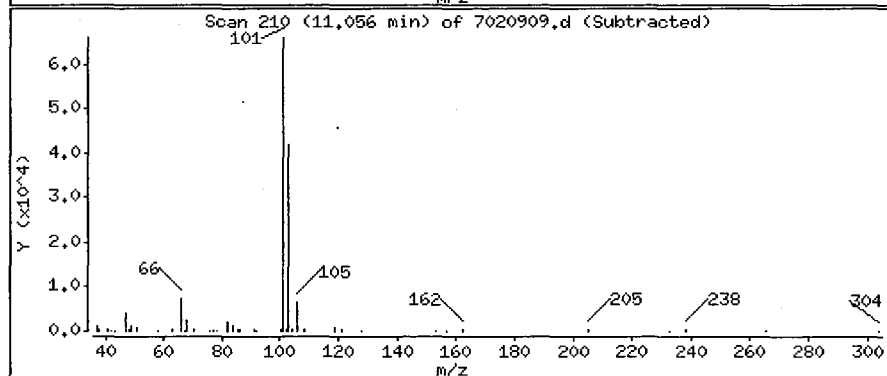
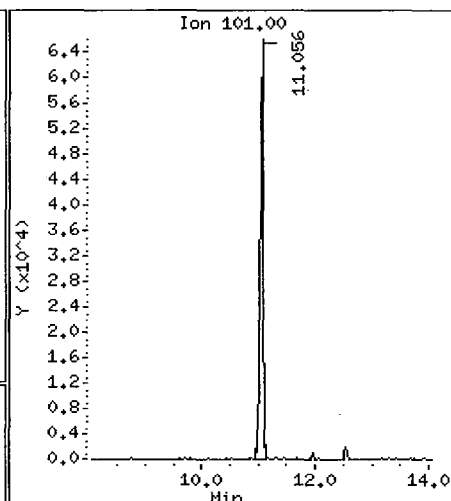
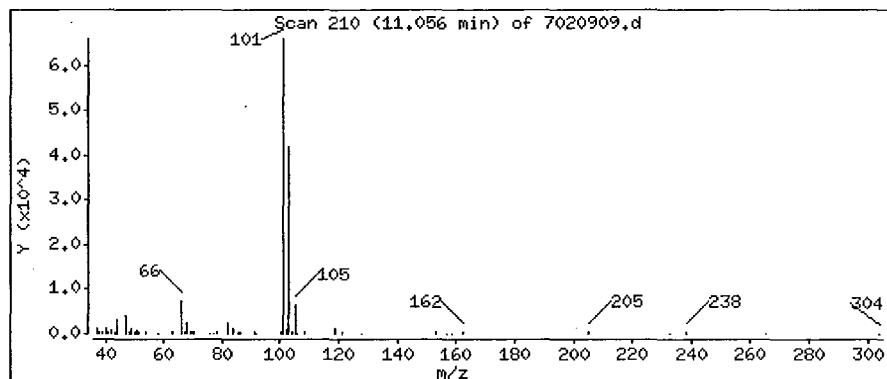
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 1.466 PPBV



0570

SCOEPAA00032242

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

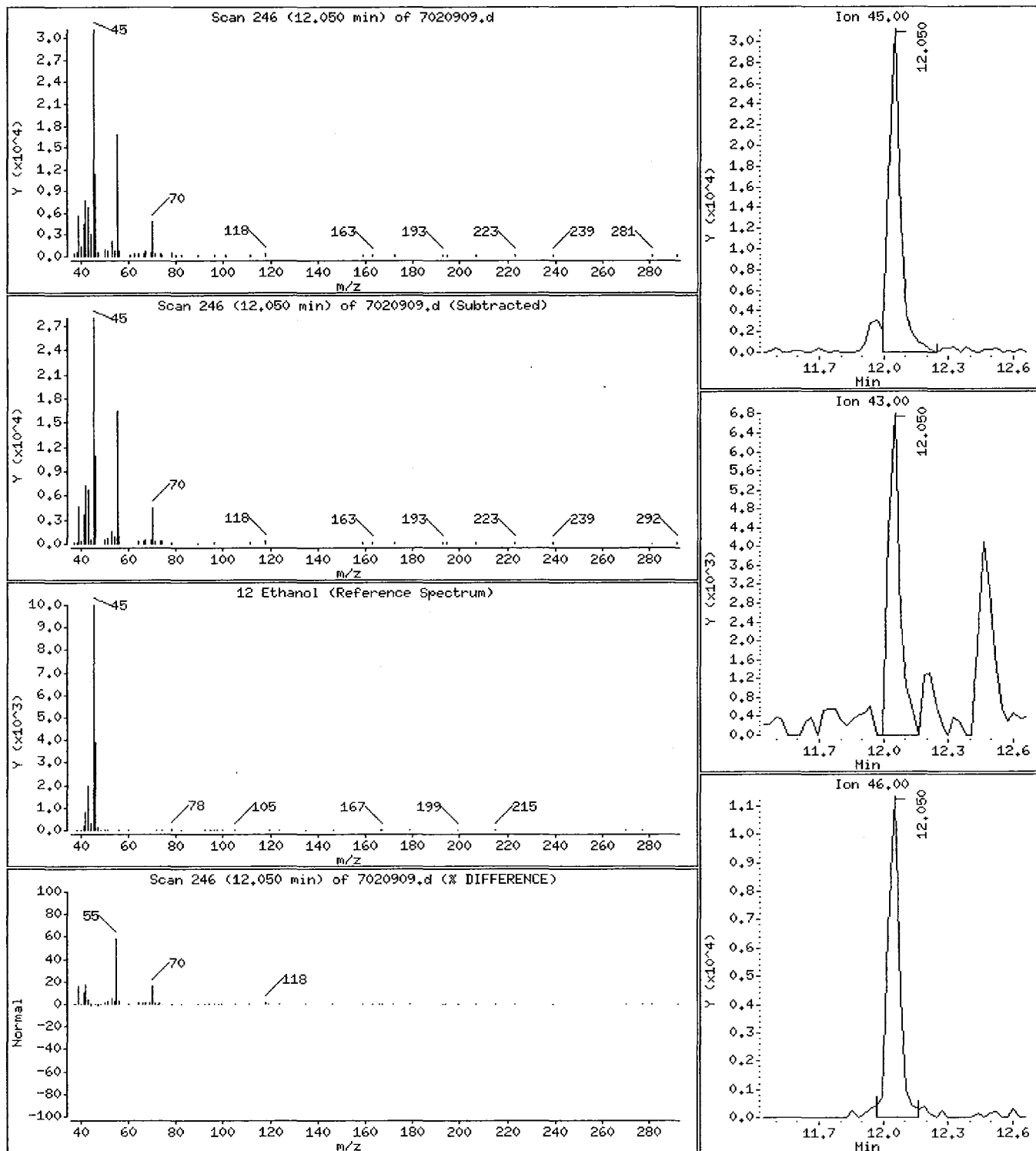
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 4,352 PPBV



0571

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

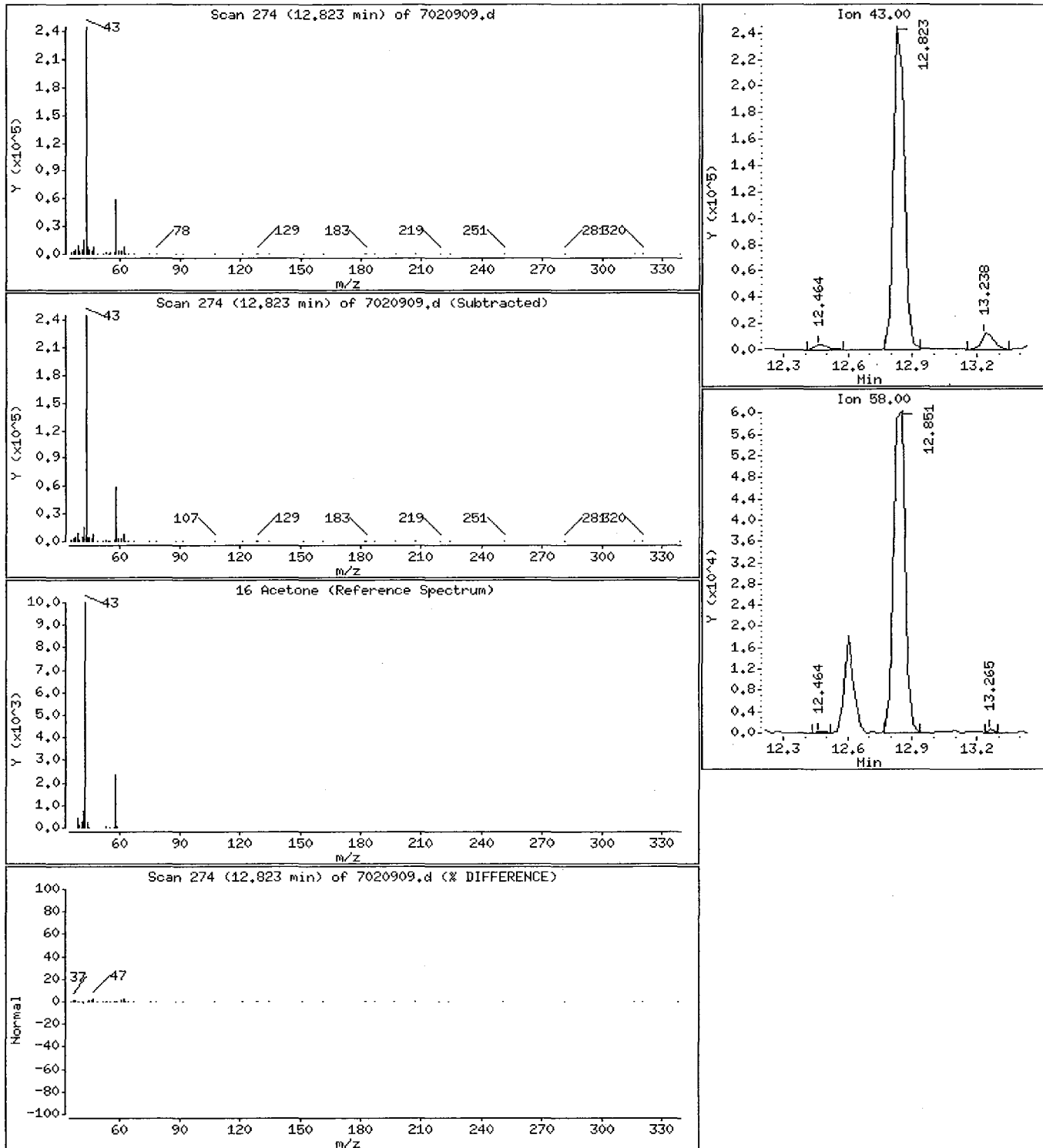
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 6,203 PPBV



0572

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

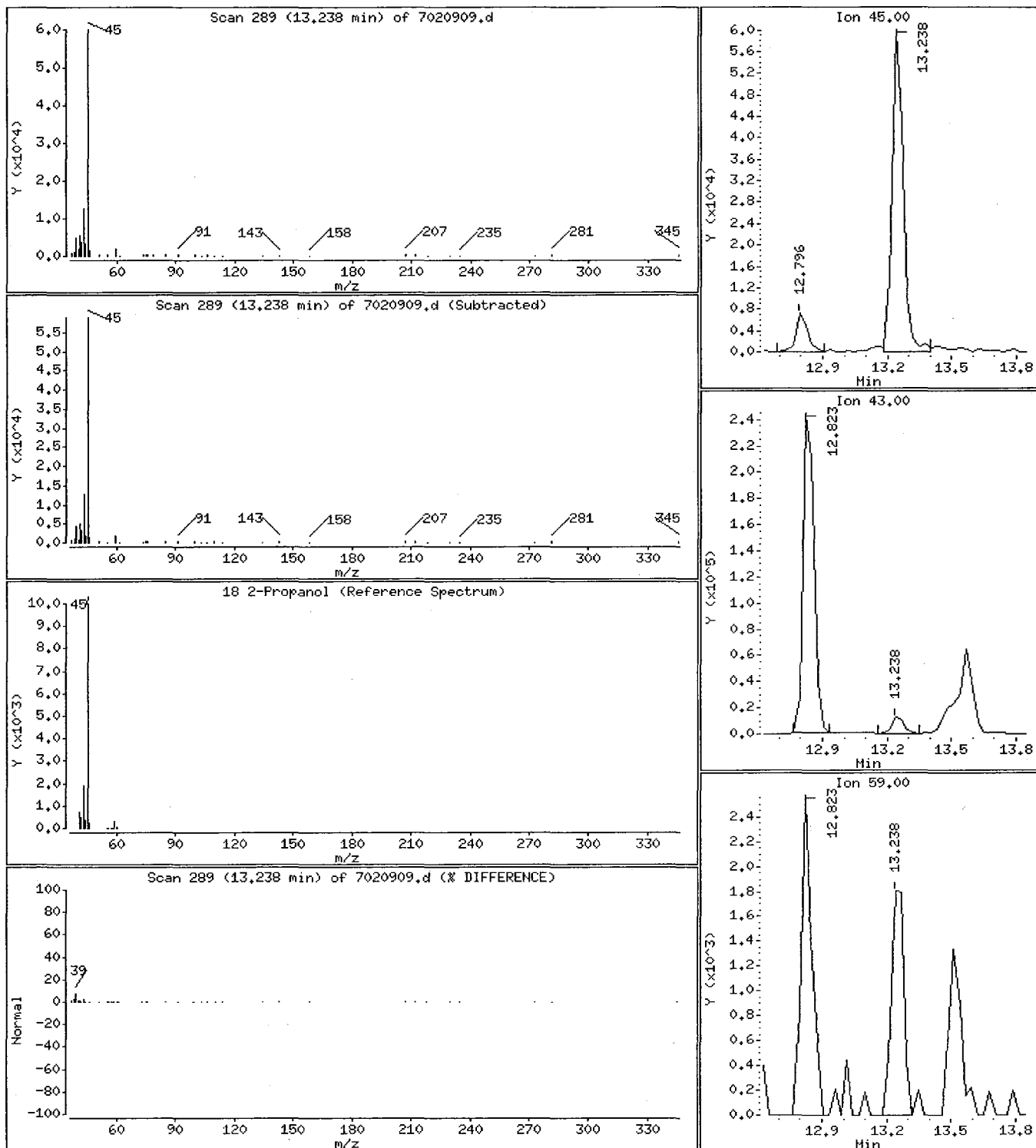
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 1.637 PPBV



0573

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

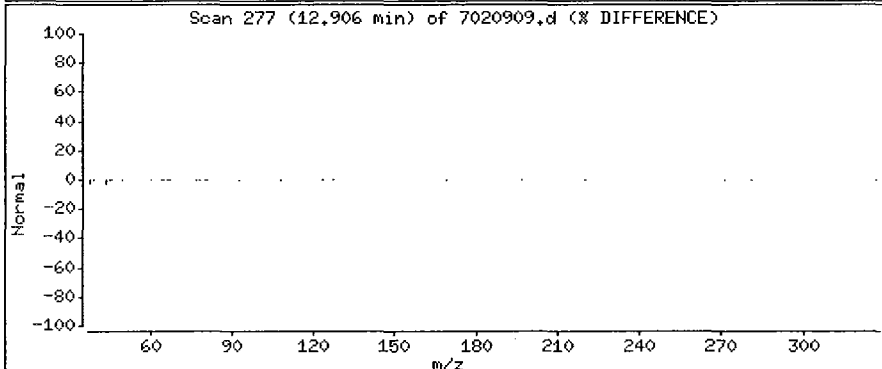
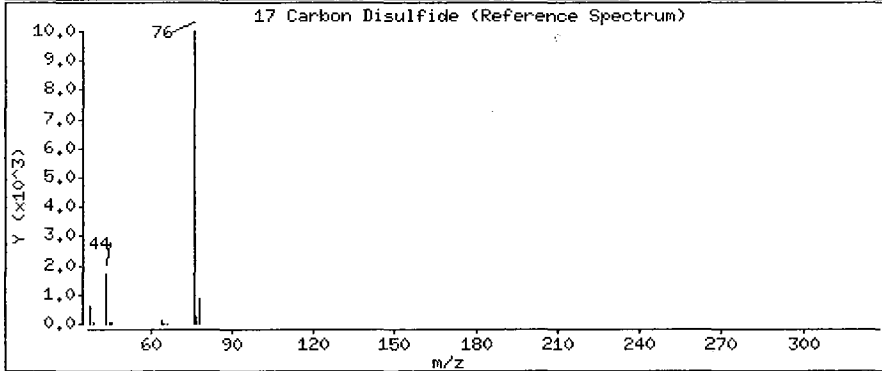
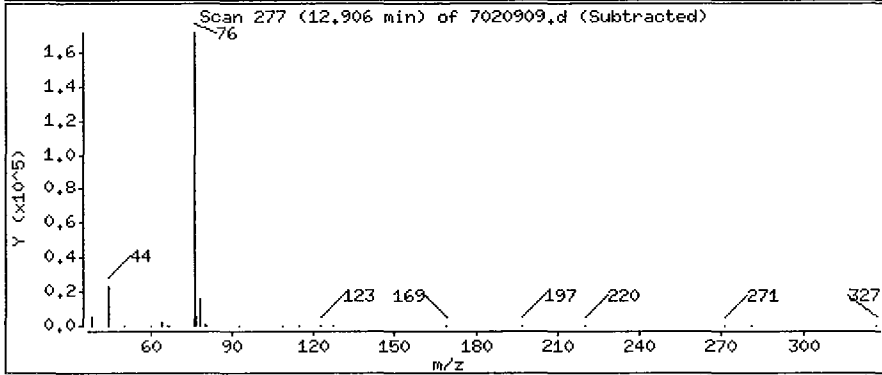
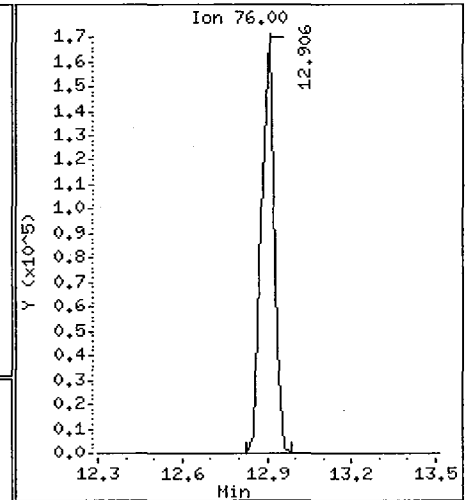
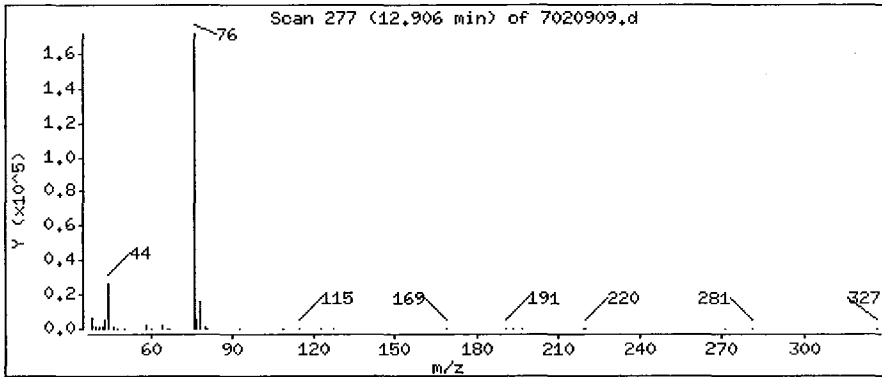
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 3.015 PPBV



0574

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

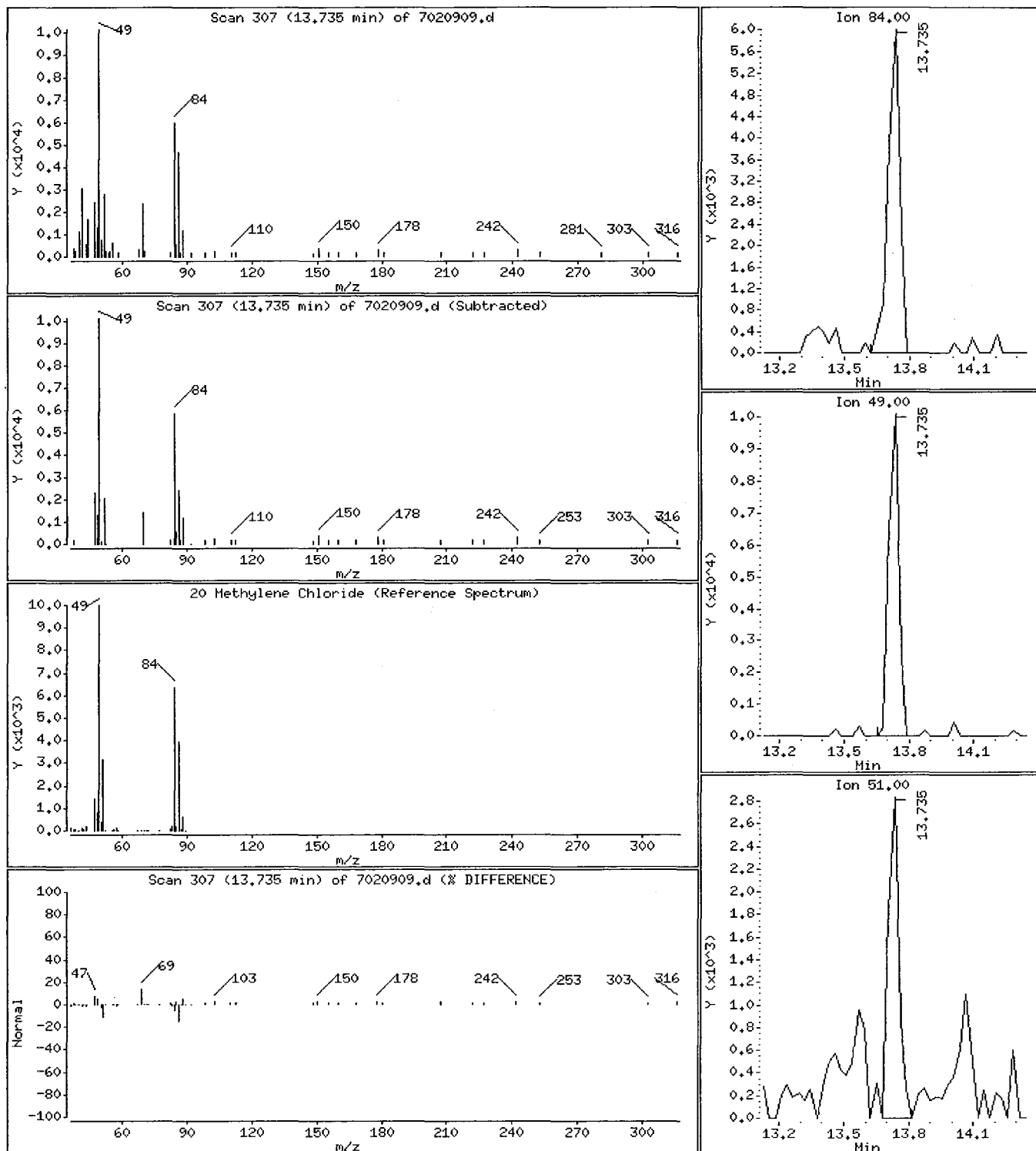
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 0.3991 PPBV



0575

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

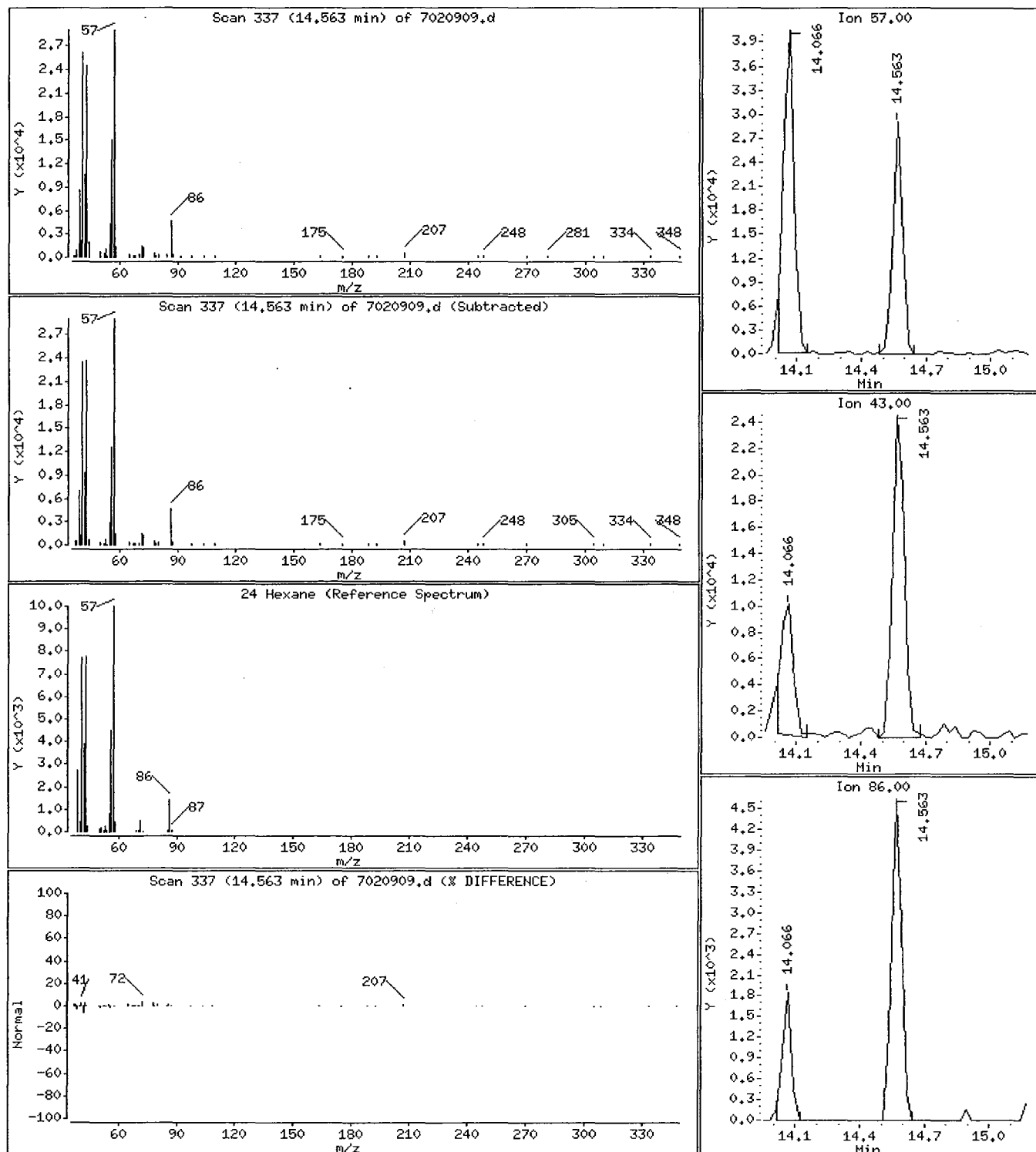
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 0.8407 PPBV



0576

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

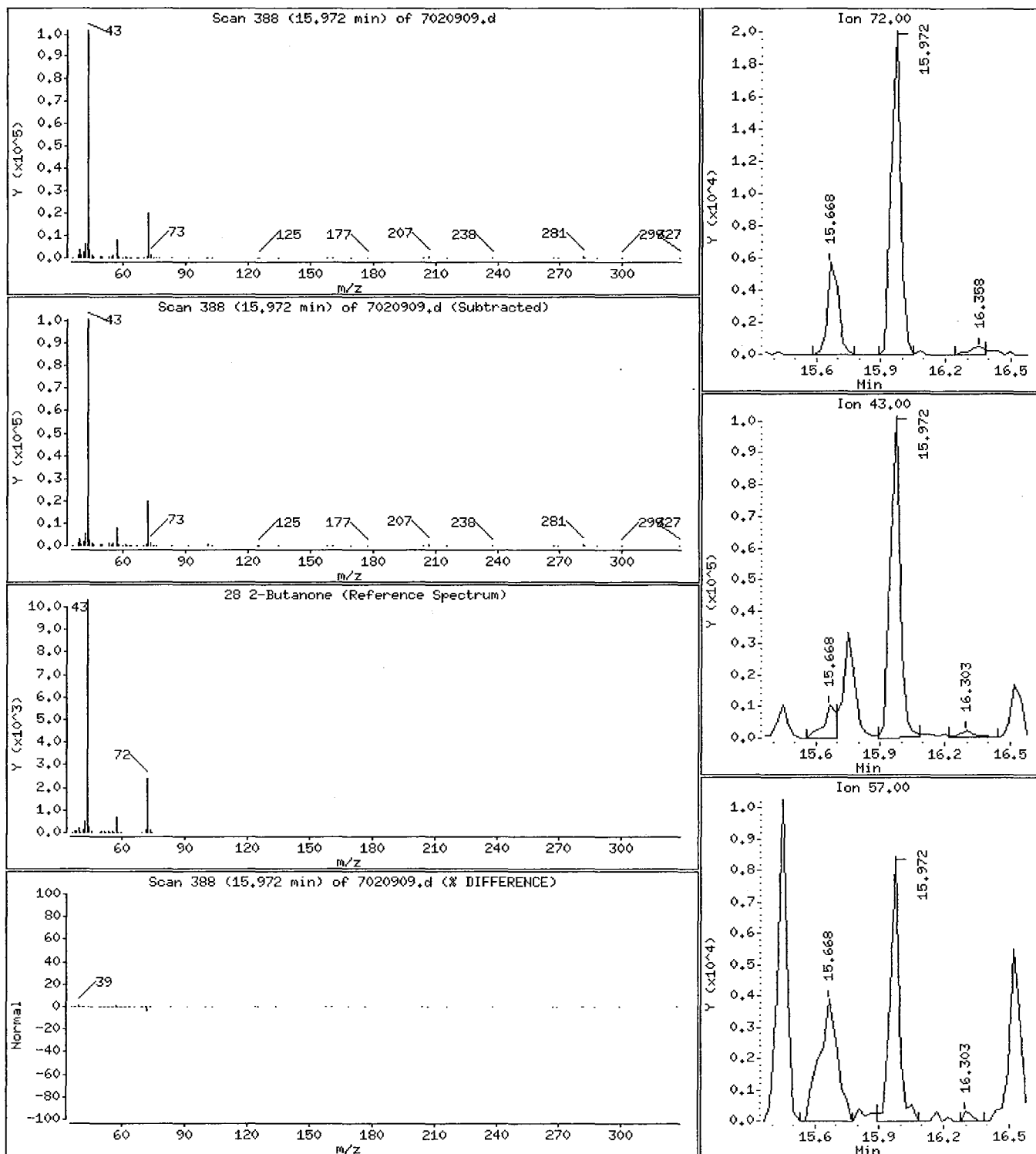
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 2,060 PPBV



0577

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

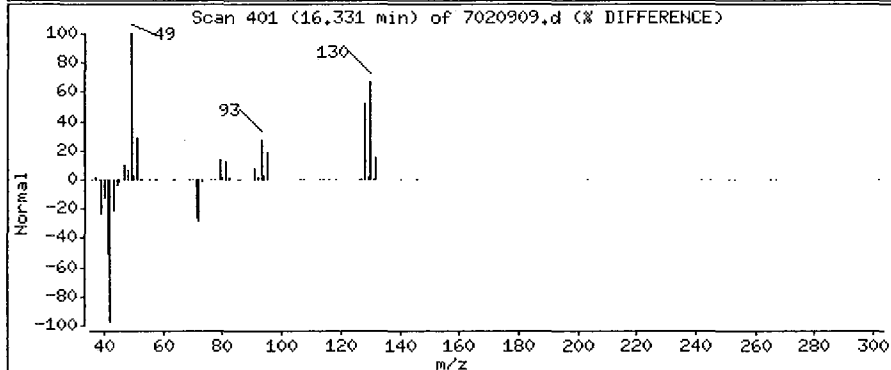
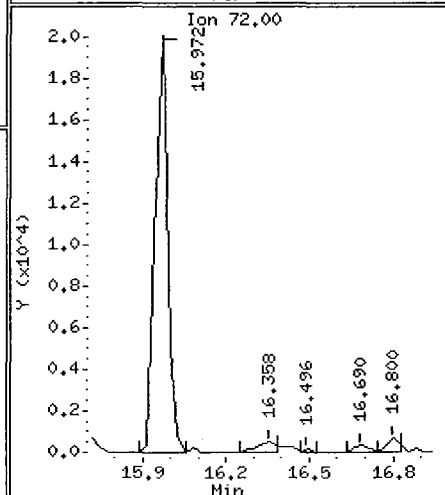
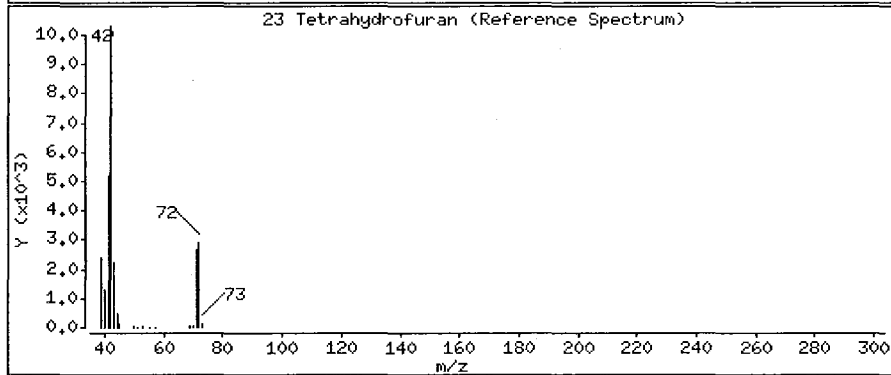
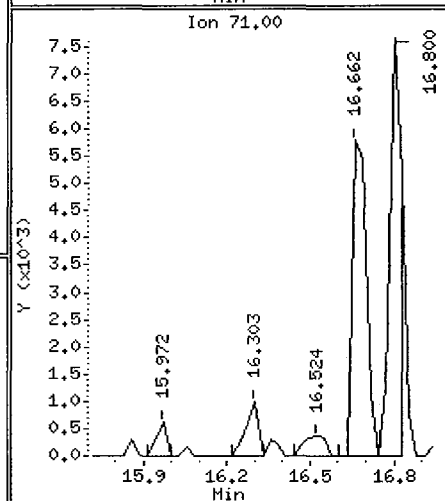
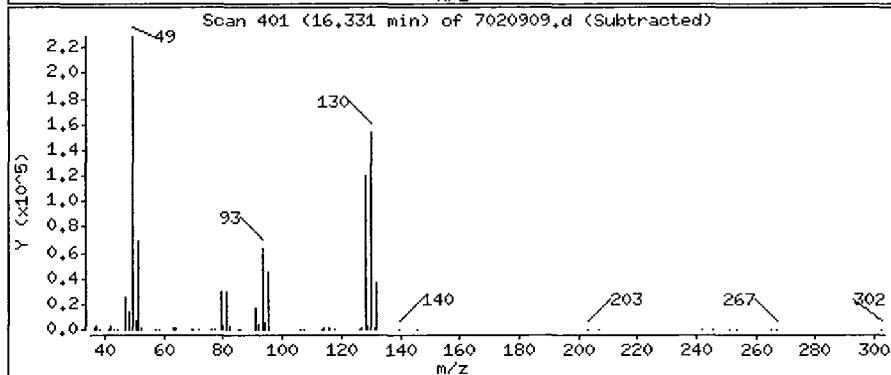
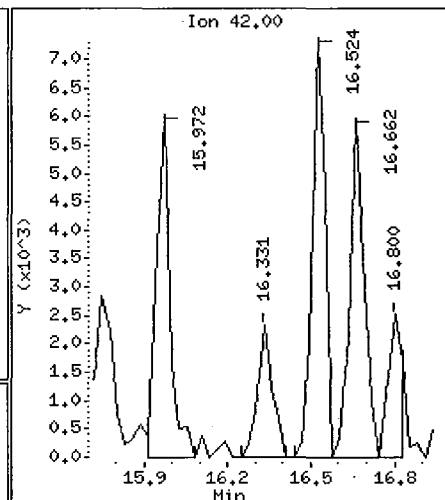
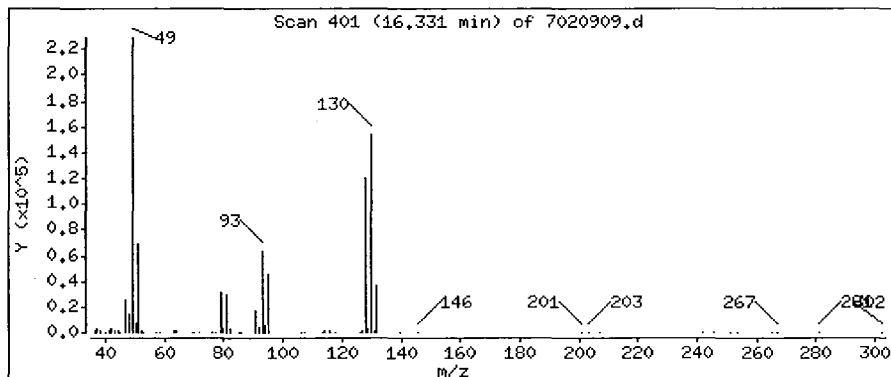
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 0.1062 PPBV



0578

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

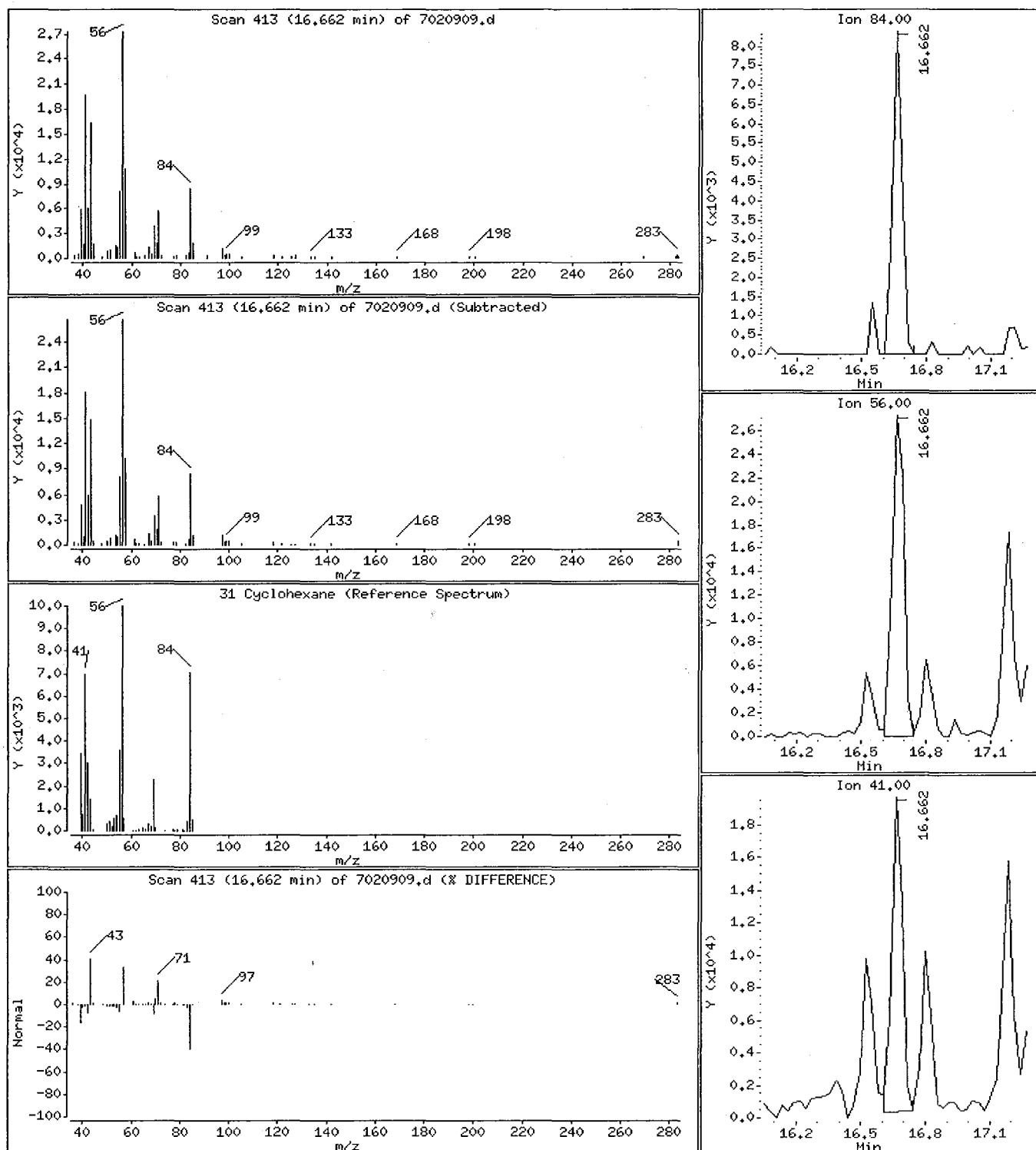
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 0.4307 PPBV



0579

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

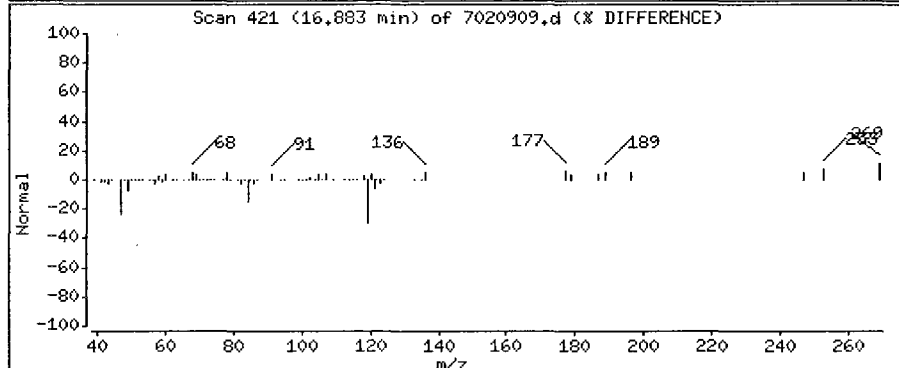
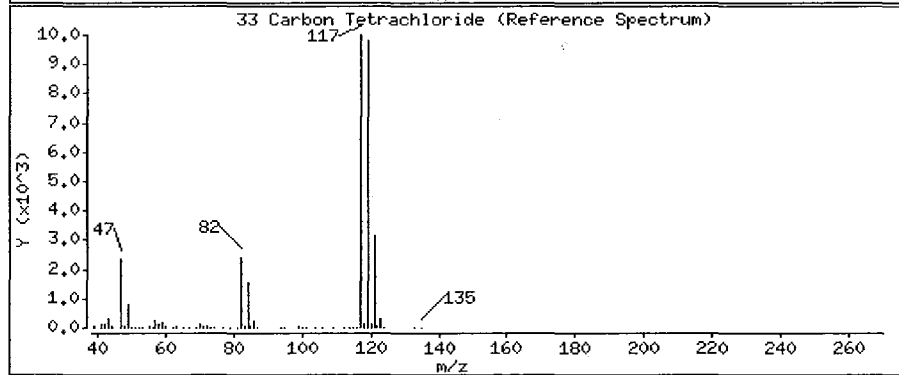
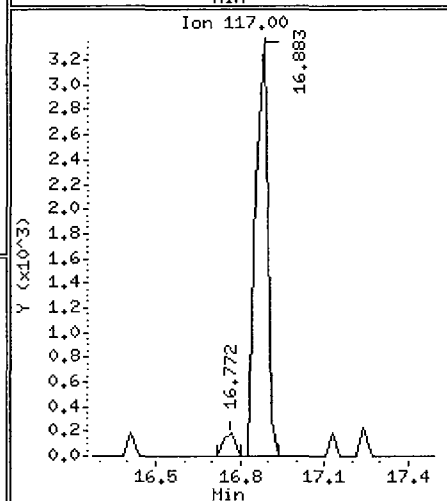
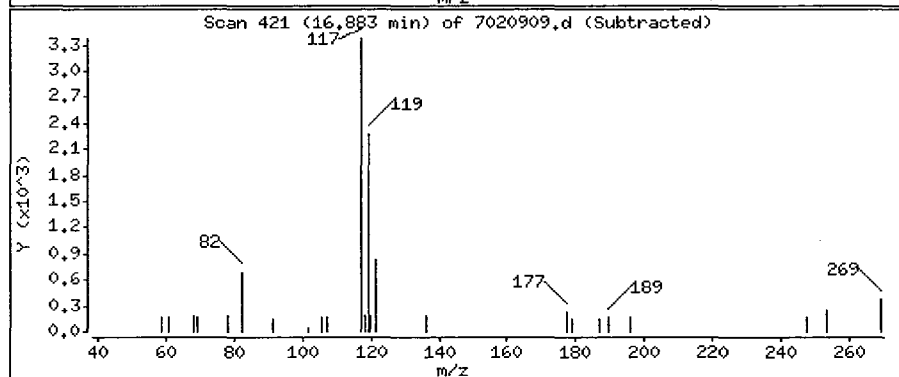
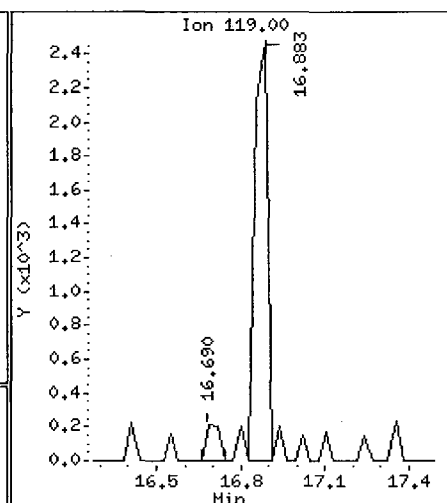
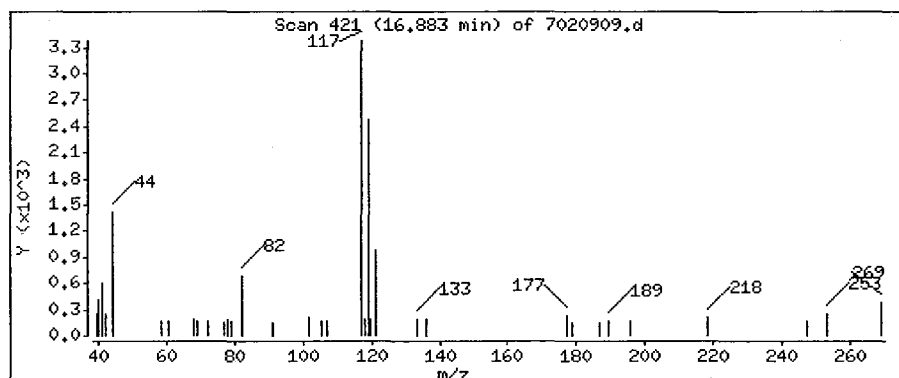
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 0.07837 PPBV



0580

Date: 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

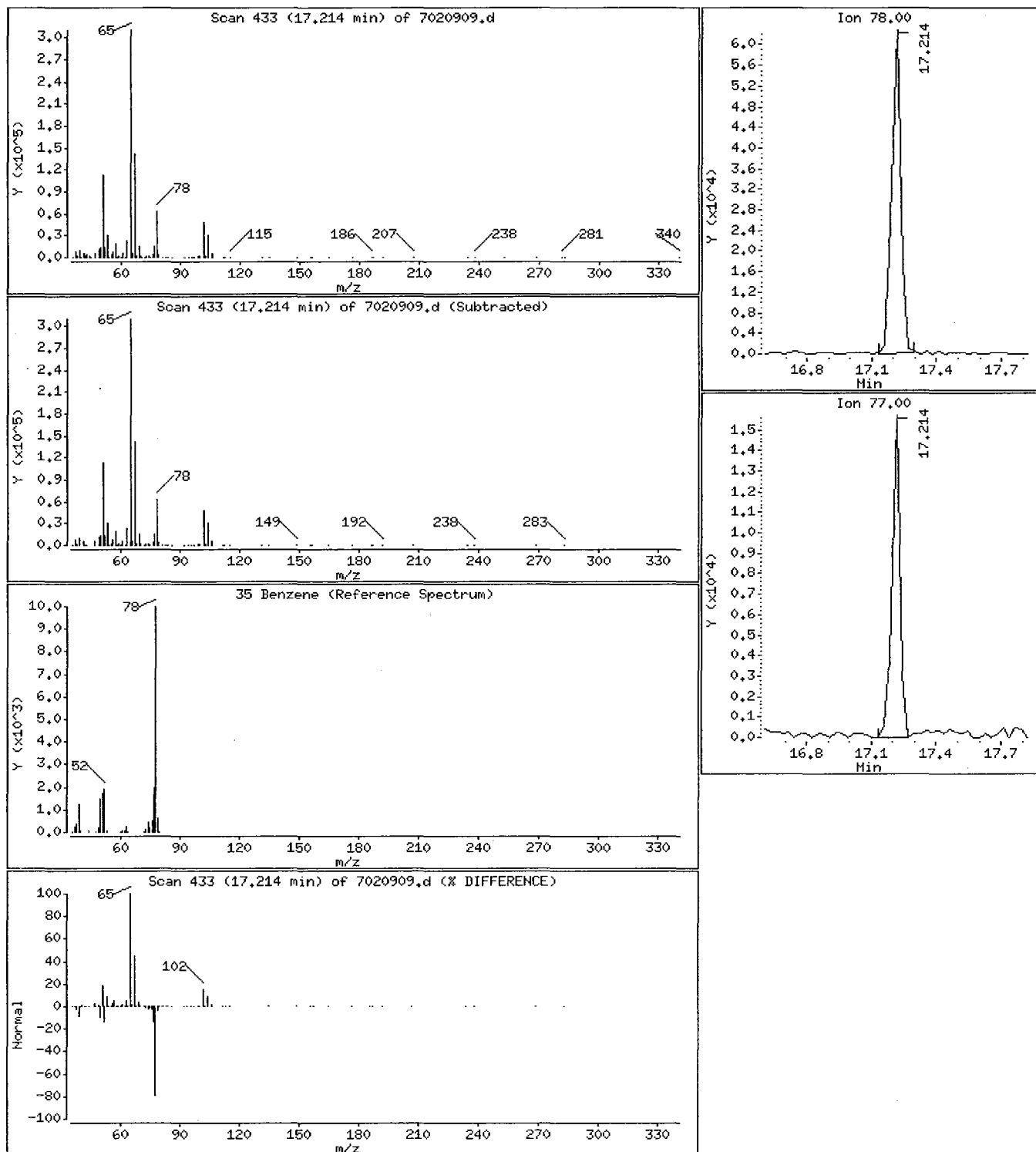
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 0.9820 PPBV



0581

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

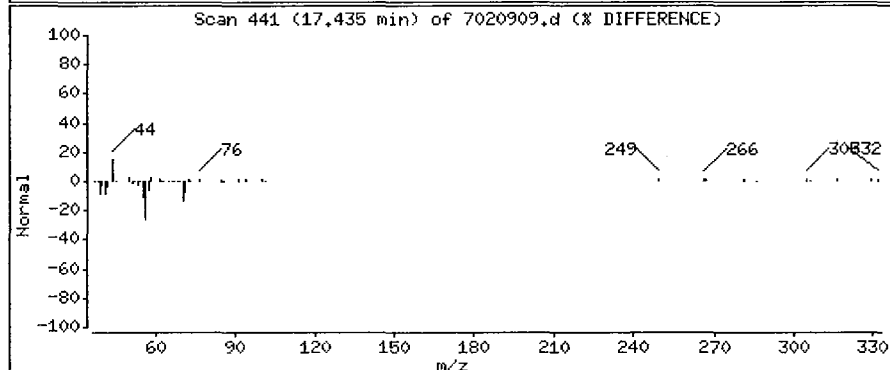
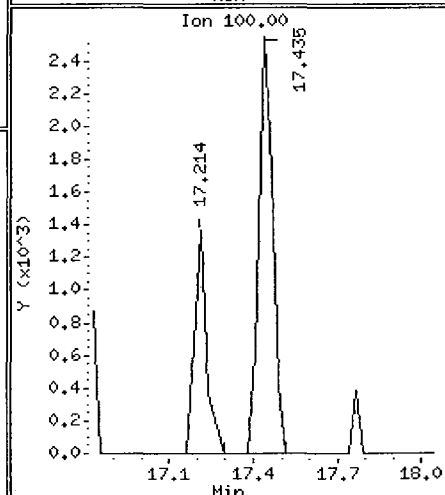
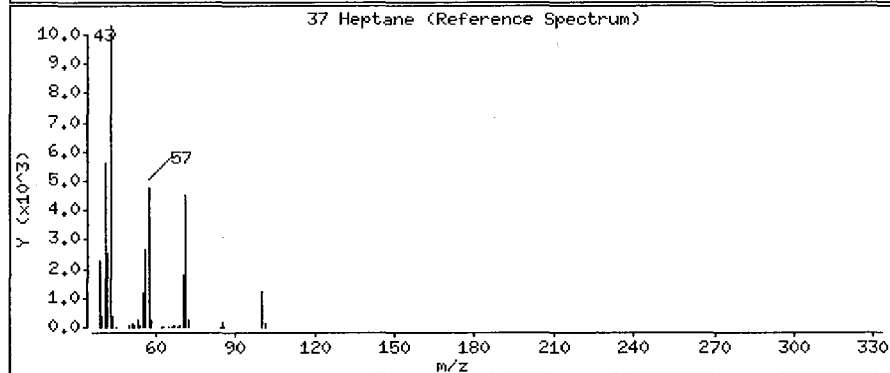
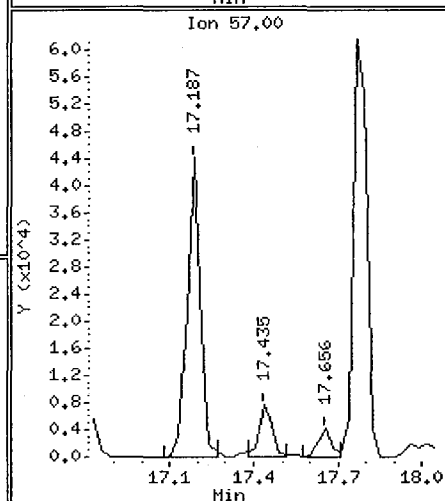
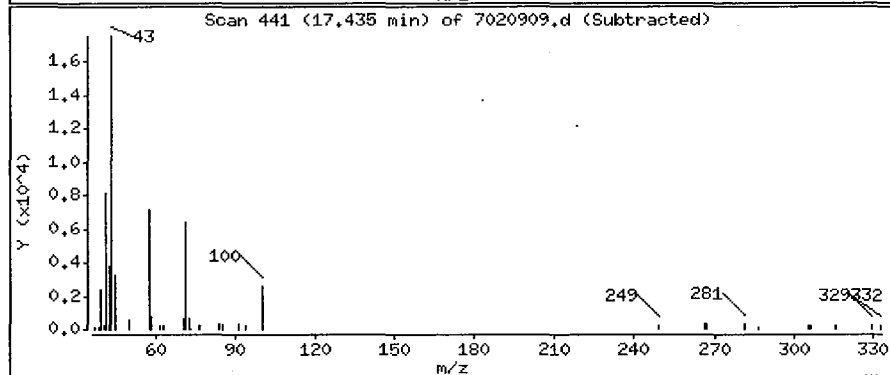
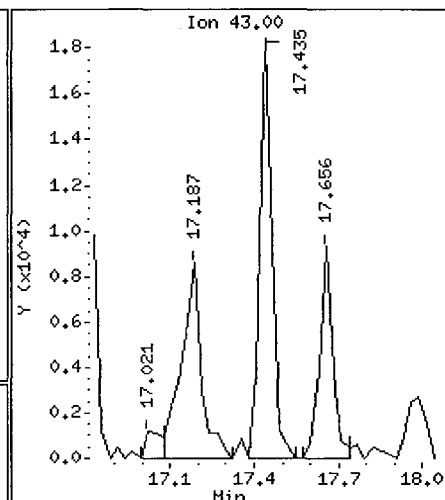
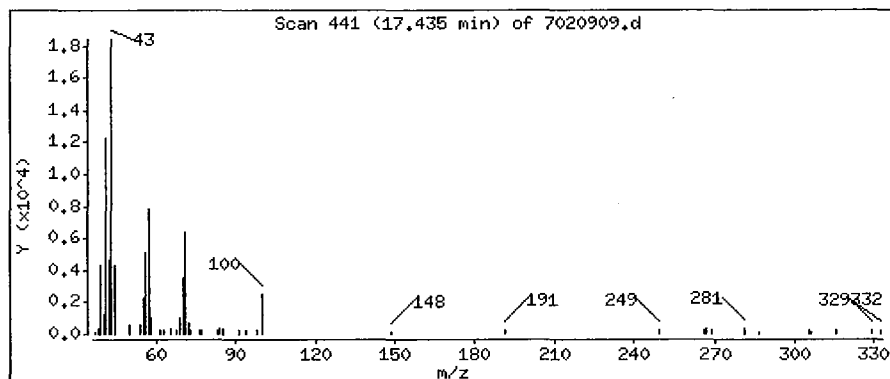
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 0.5173 PPBV



0582

Date: 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

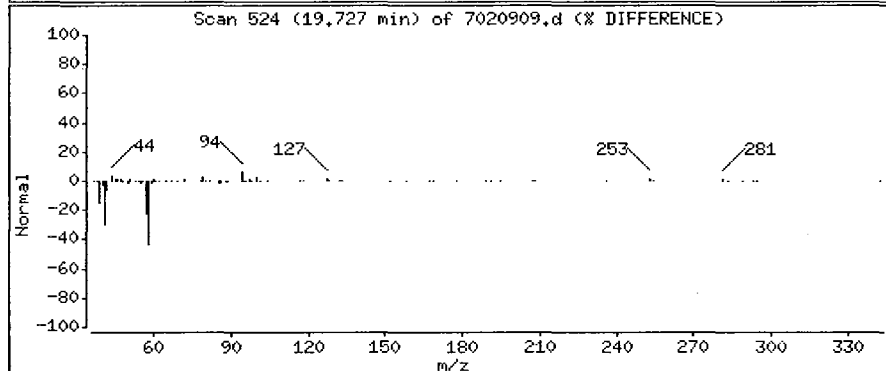
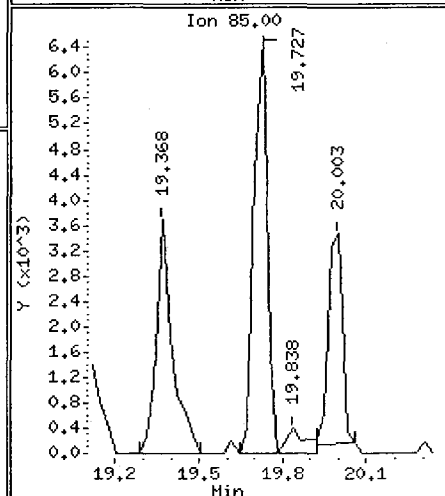
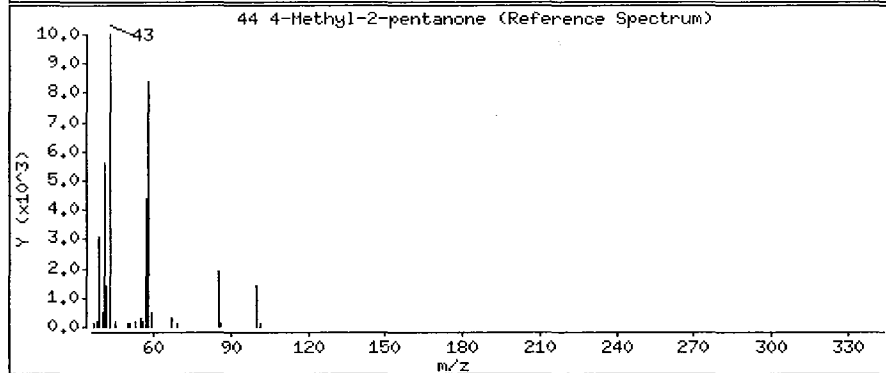
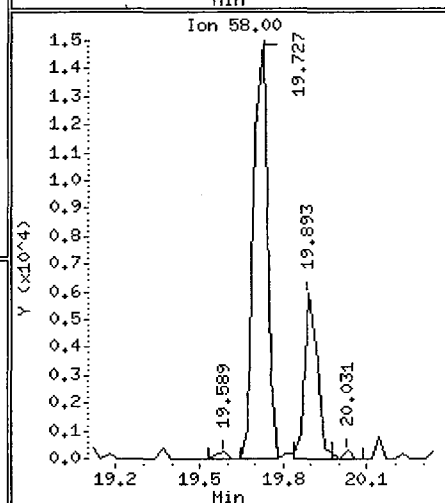
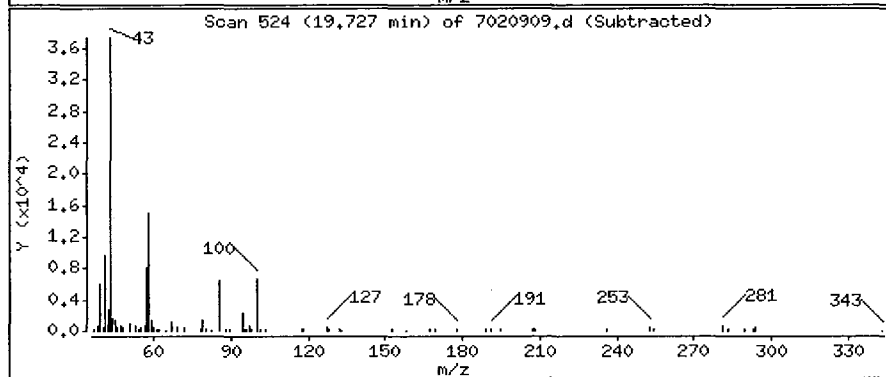
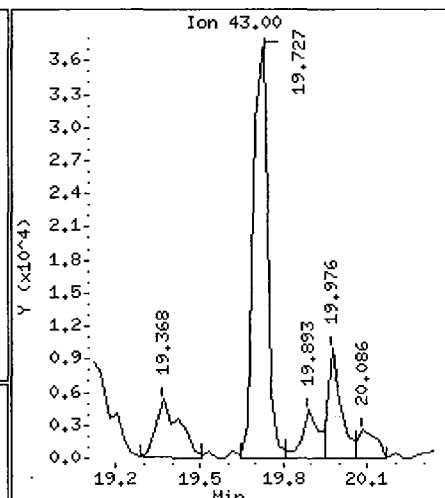
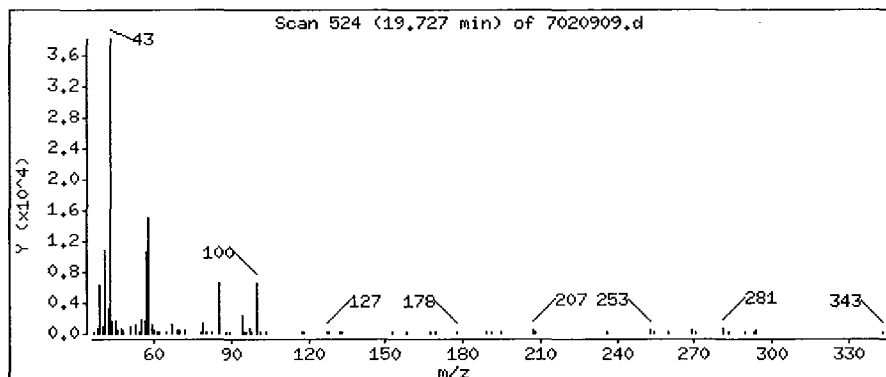
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 1,111 PPBV



0583

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

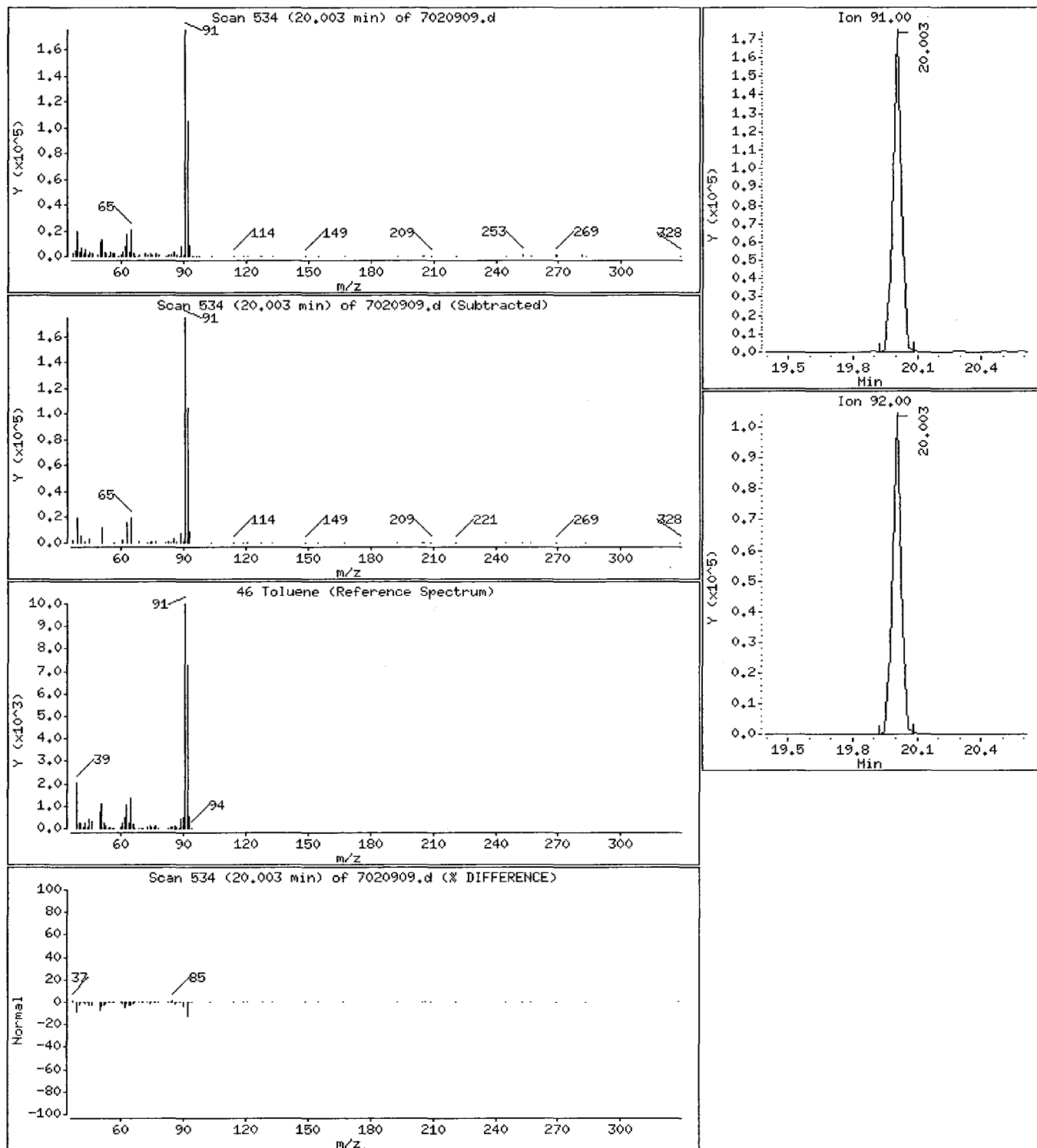
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 2,215 PPBV



0584

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

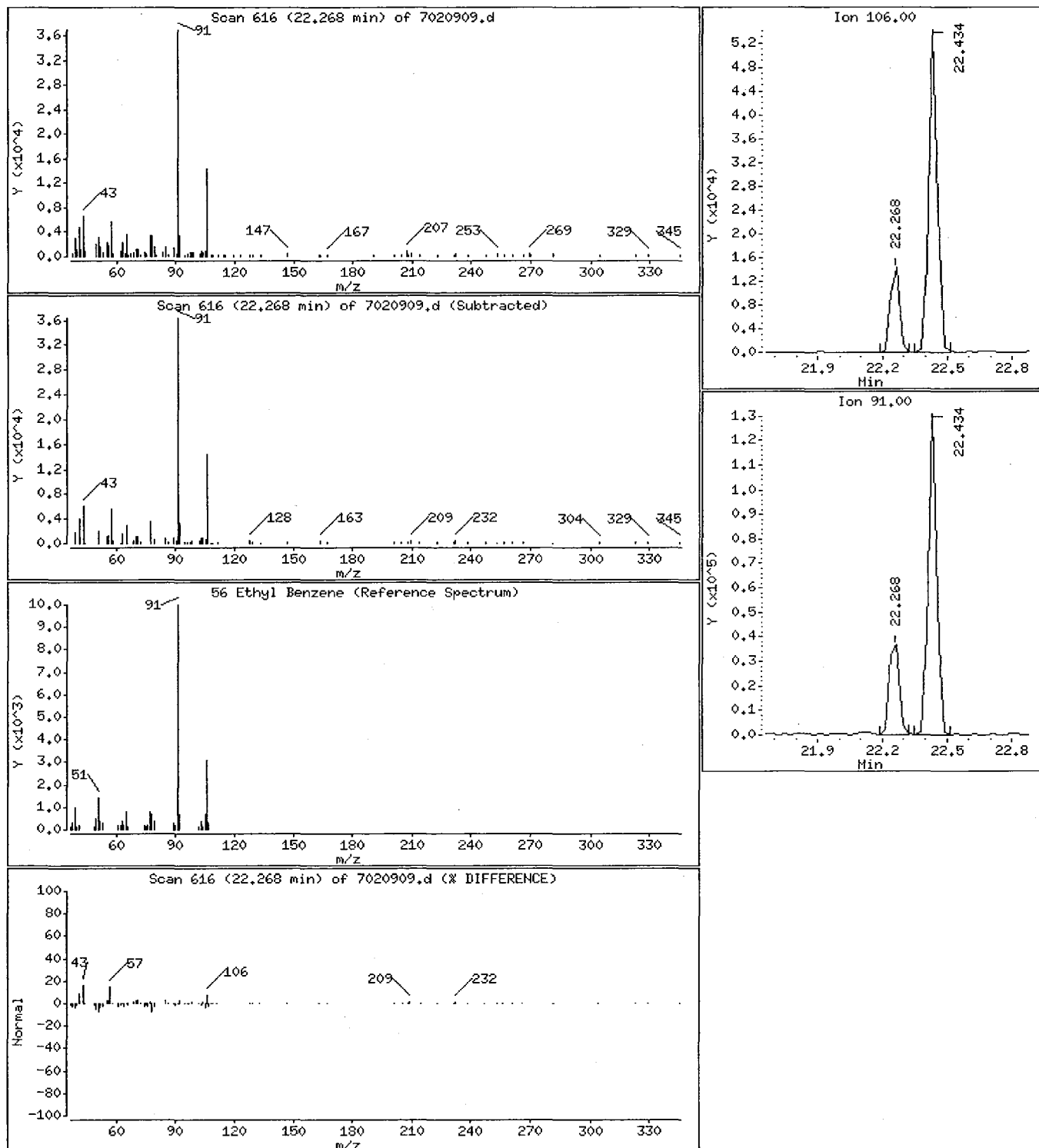
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 0.5850 PPBV



0585

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

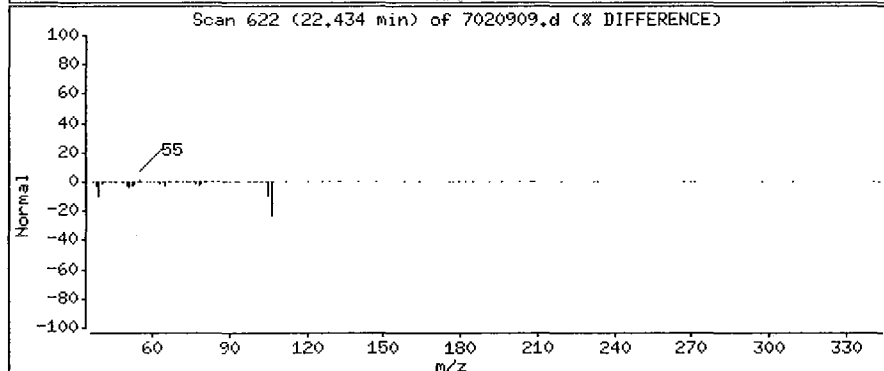
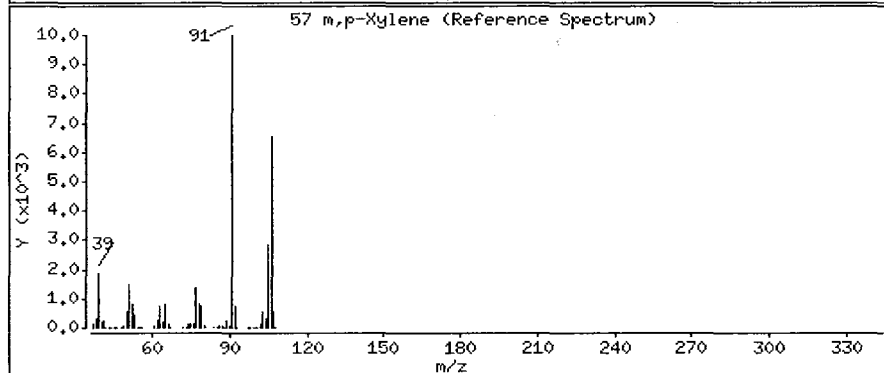
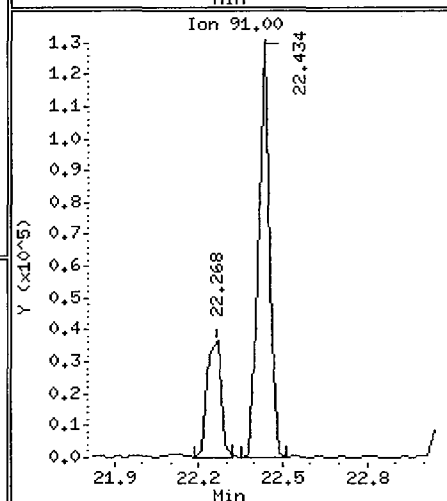
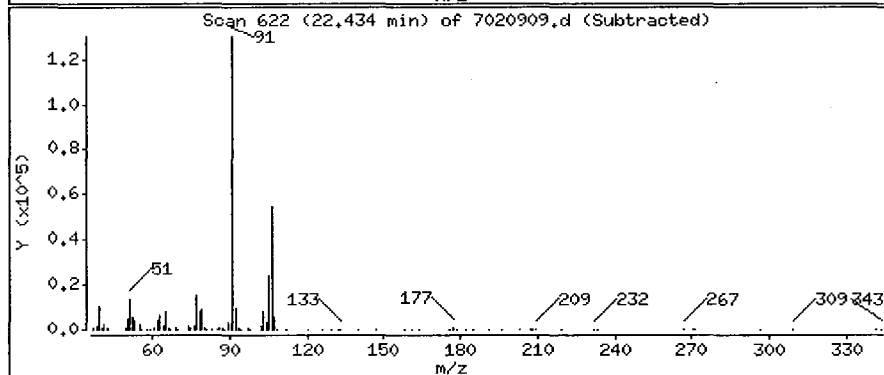
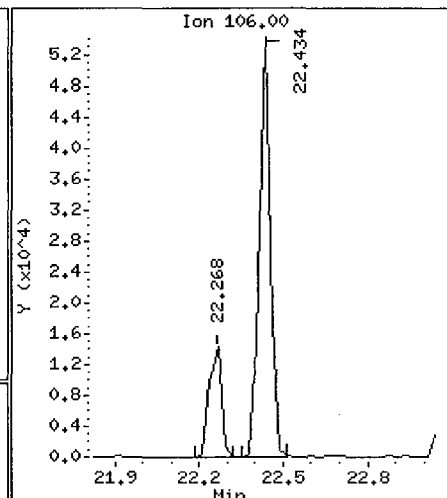
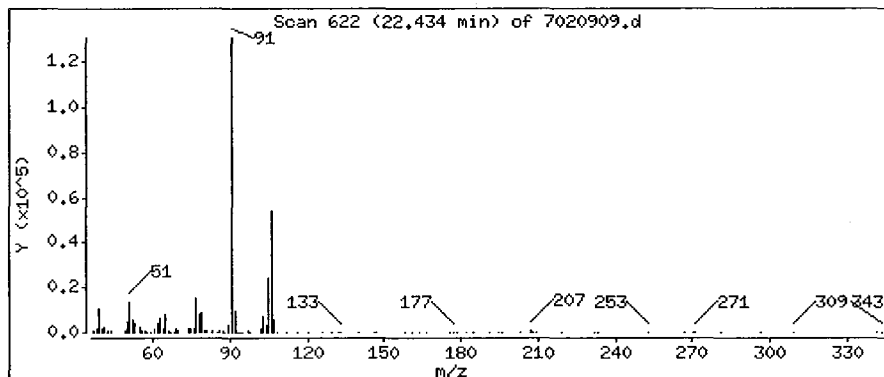
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 1.618 PPBV



0586

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

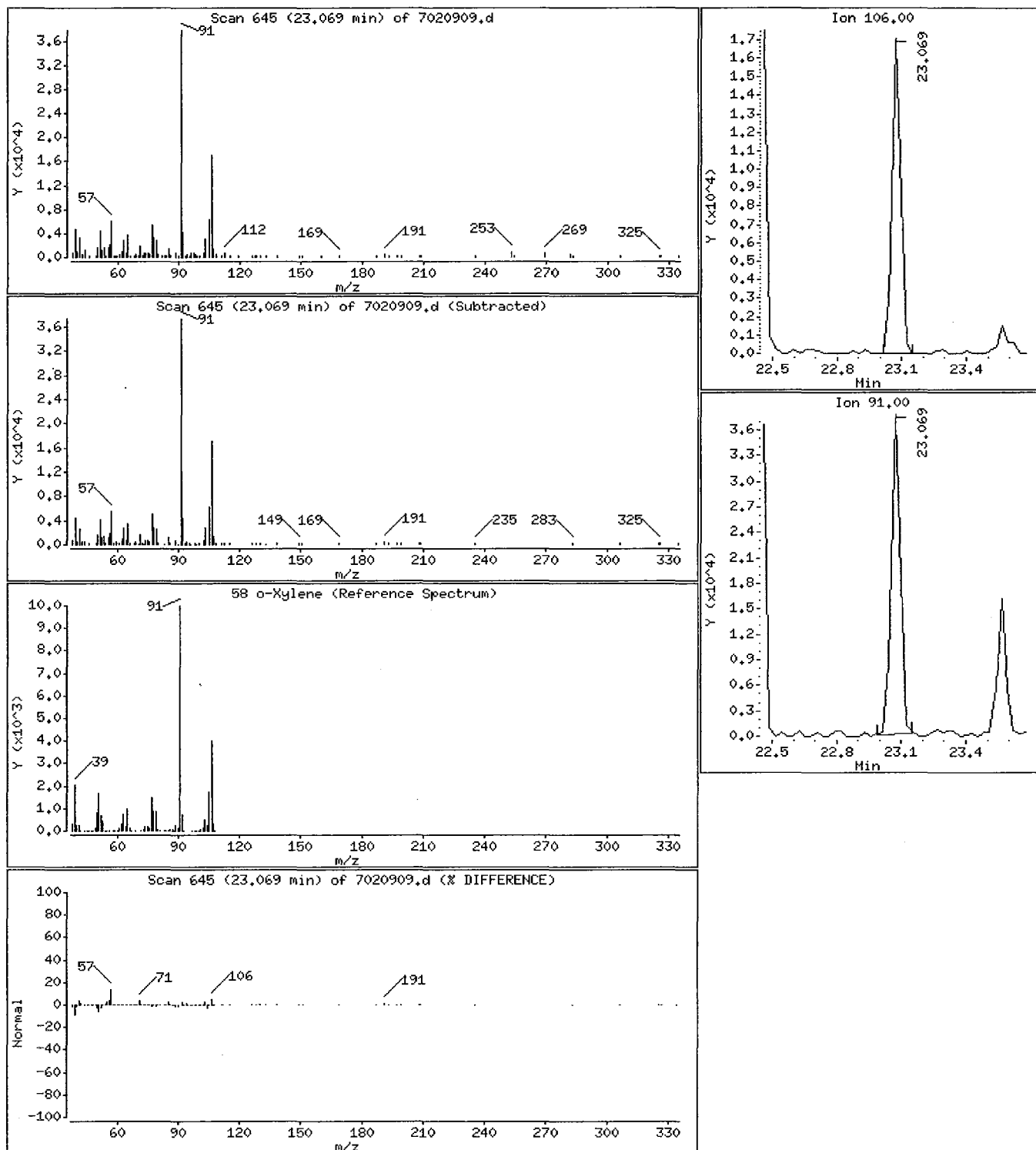
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 0.6491 PPBV



0587

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

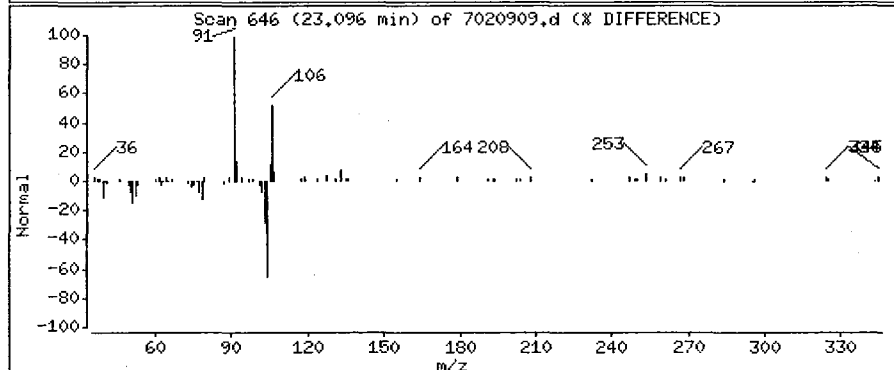
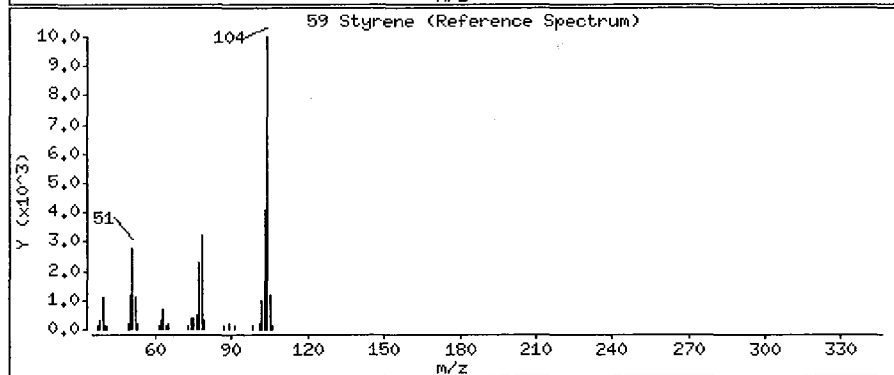
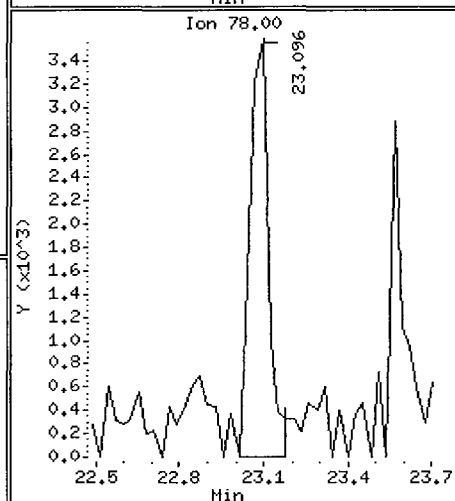
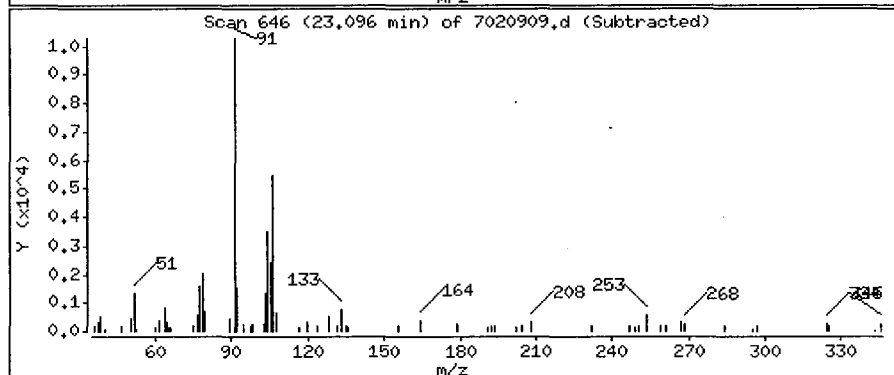
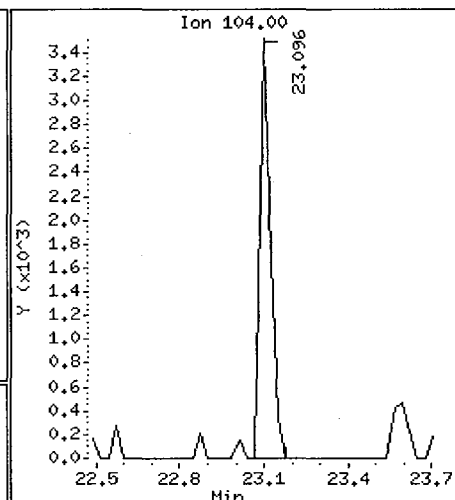
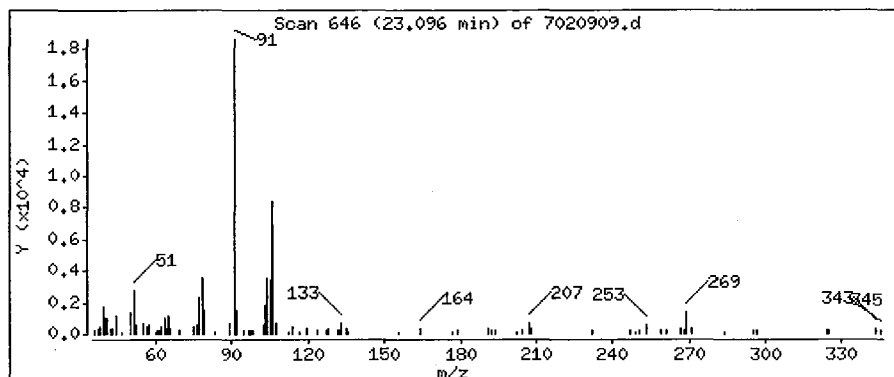
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 0.08067 PPBV



0588

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

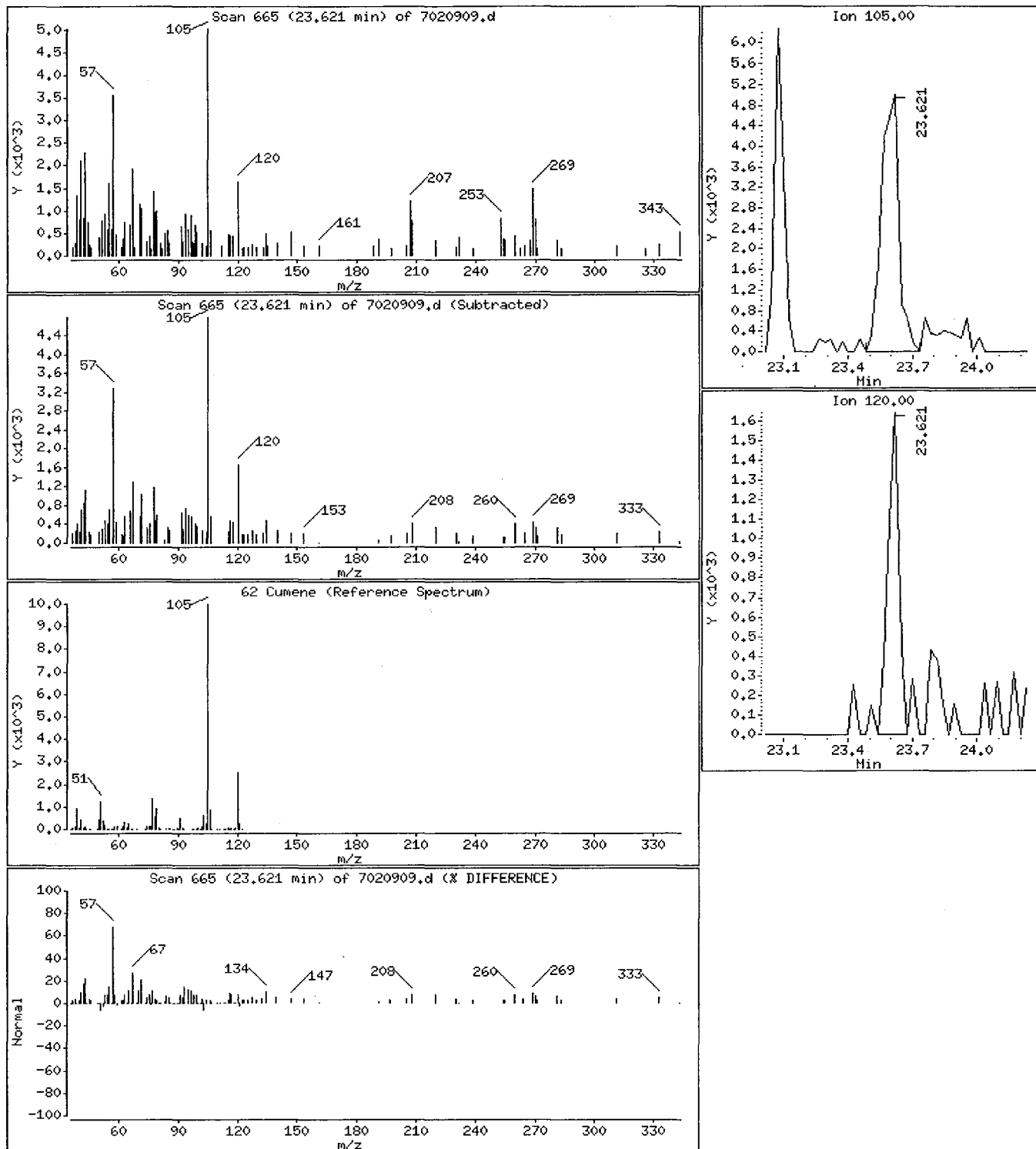
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 0.1625 PPBV



0589

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

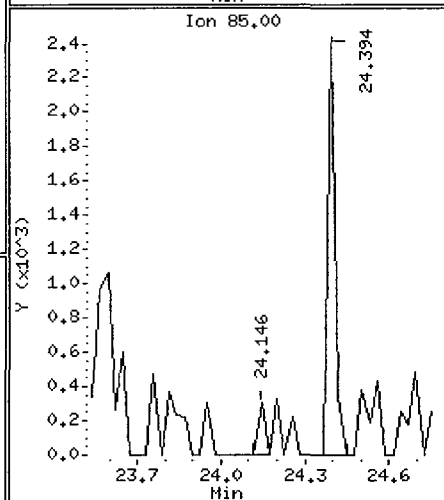
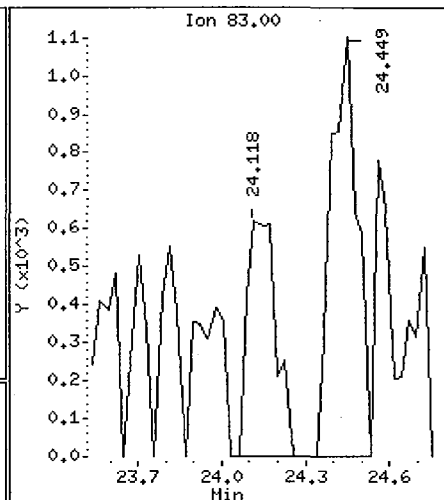
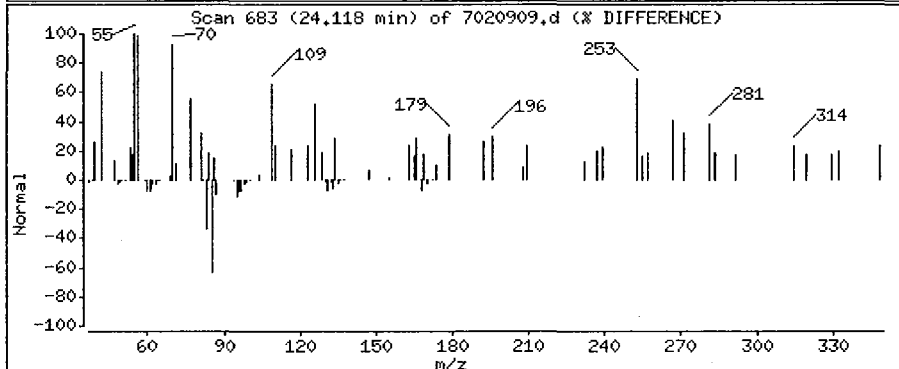
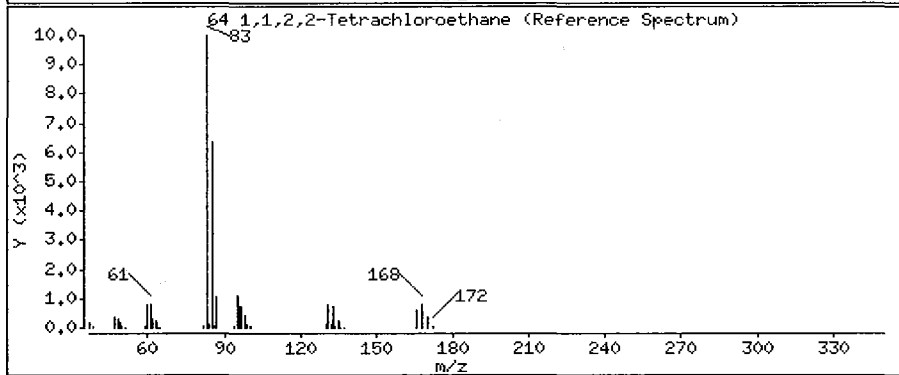
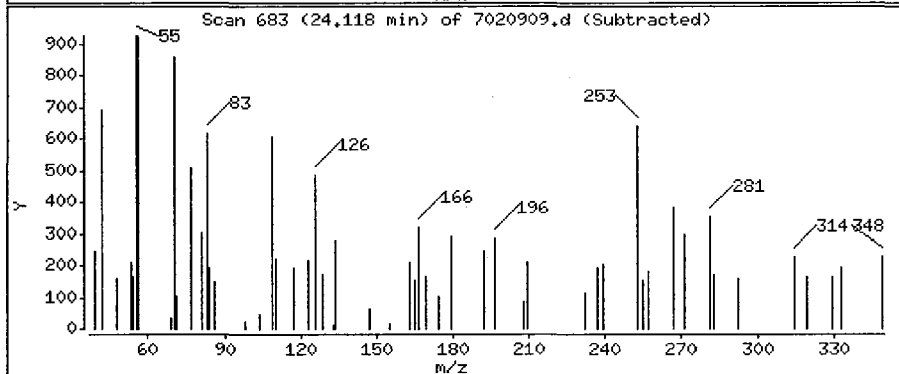
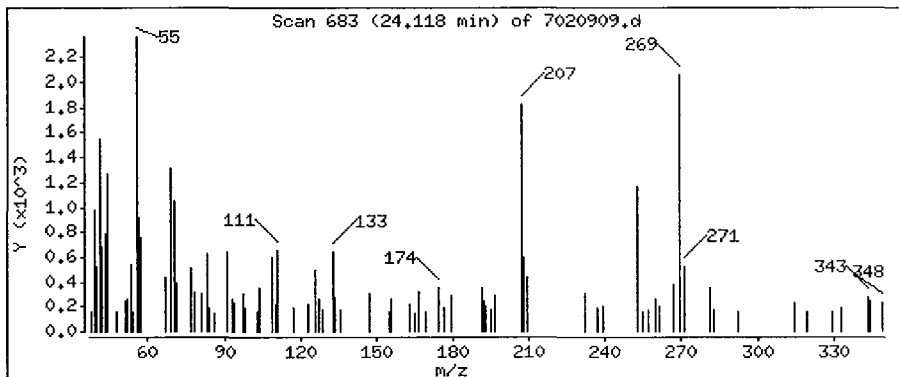
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

64 1,1,2,2-Tetrachloroethane

Concentration: 0.05137 PPBV



0590

SCOEPAA00032262

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

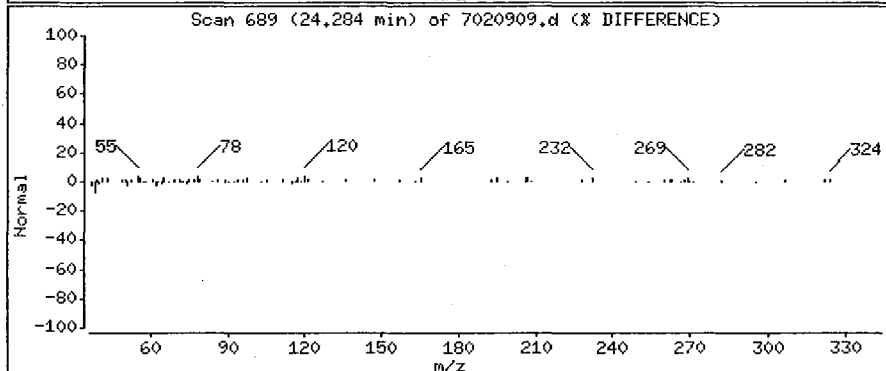
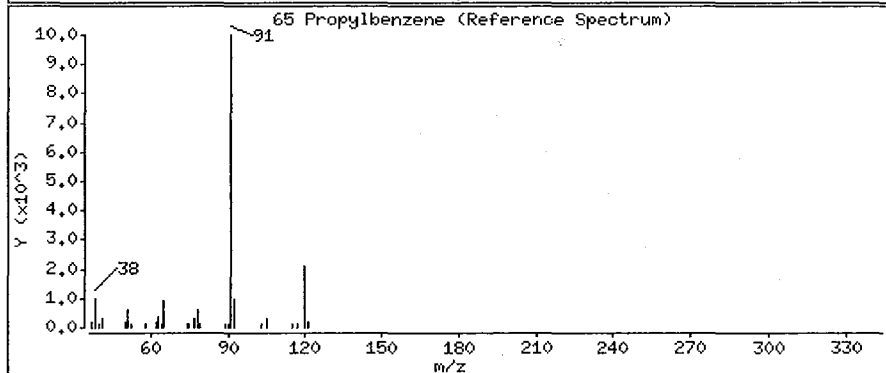
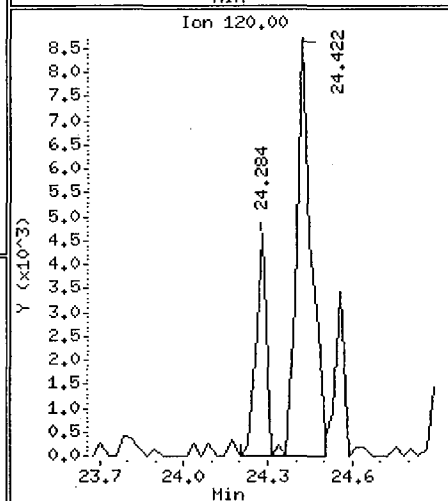
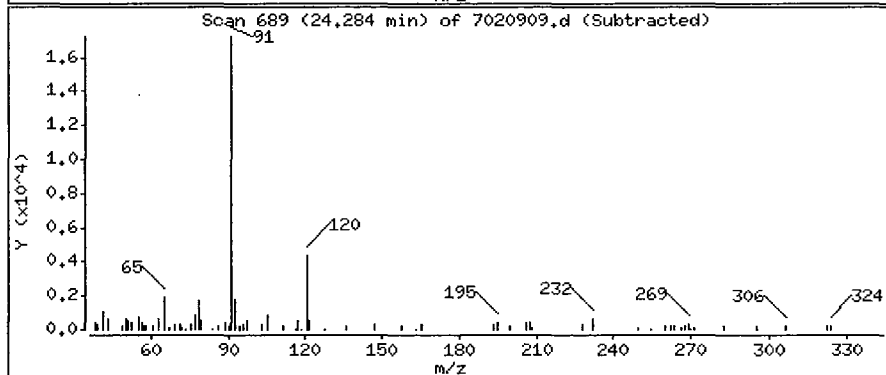
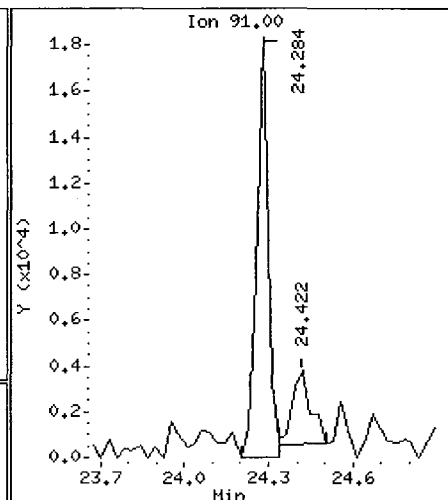
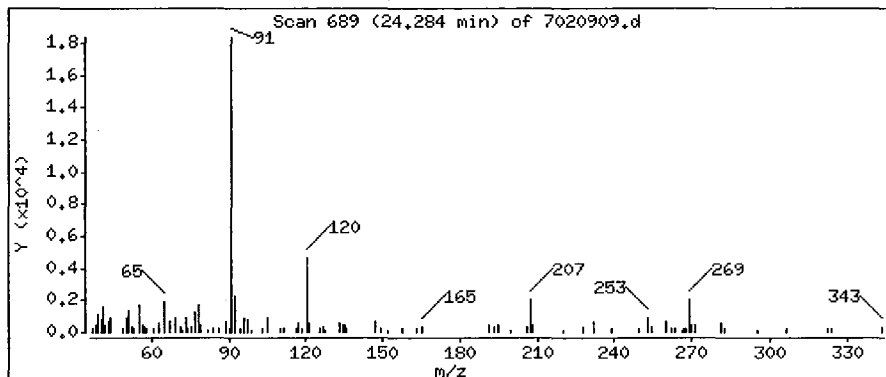
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 0.2134 PPBV



0591

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

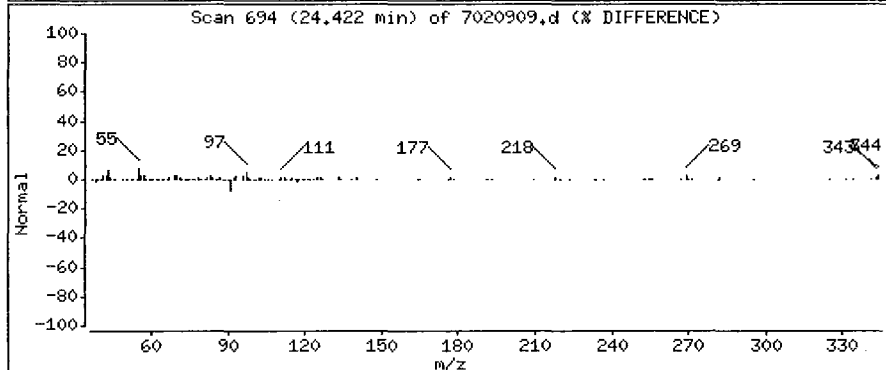
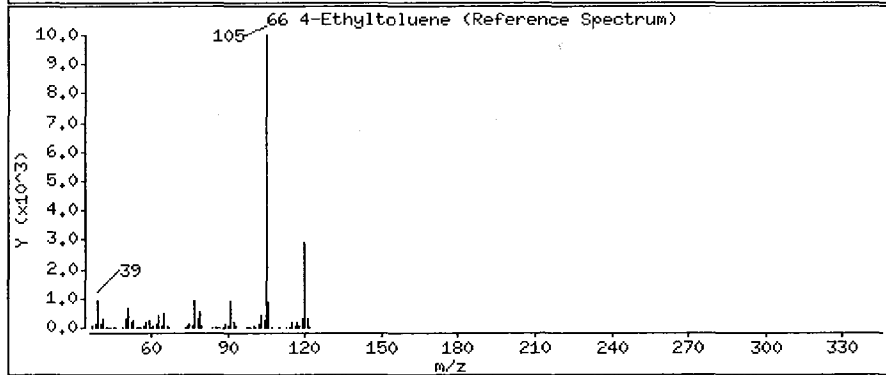
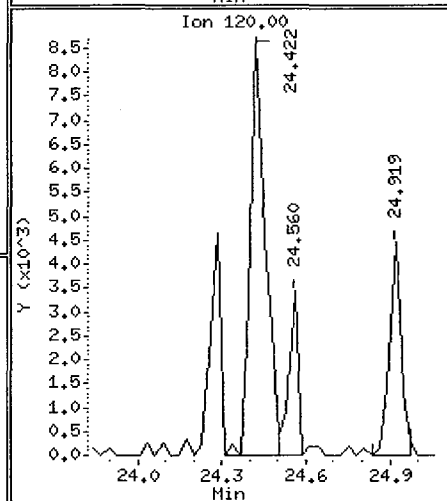
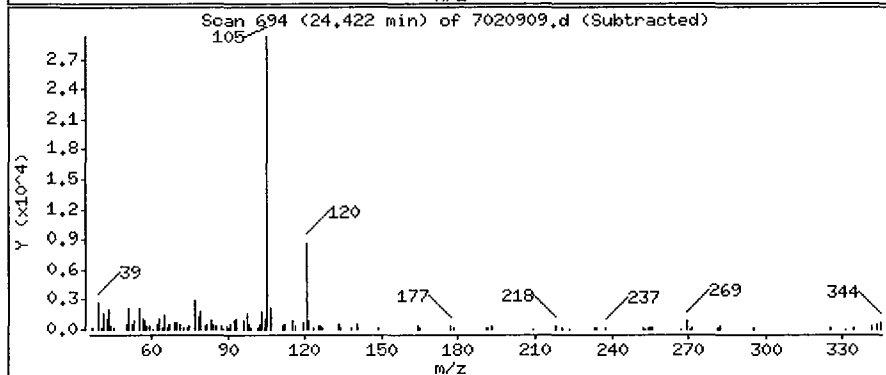
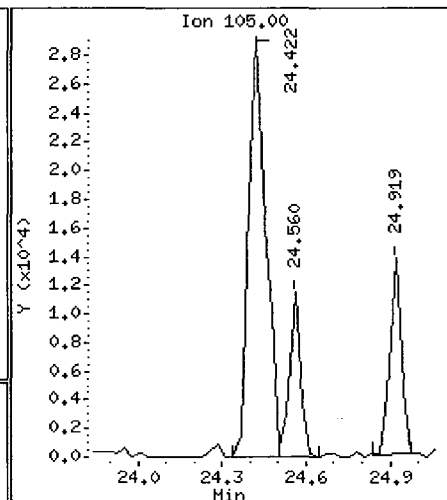
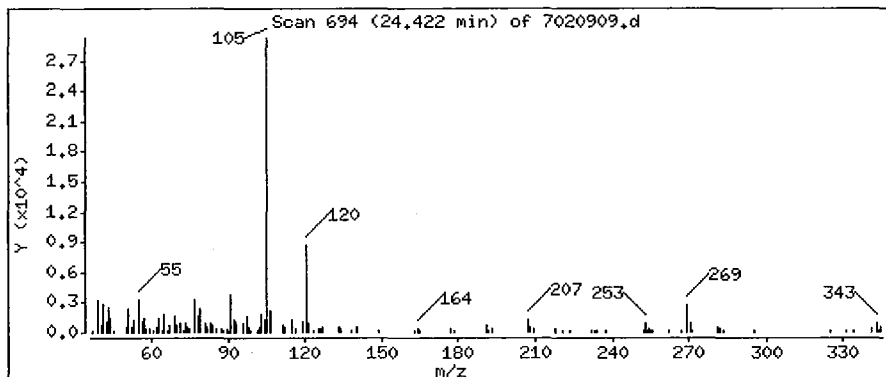
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 0.6380 PPBV



0592

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

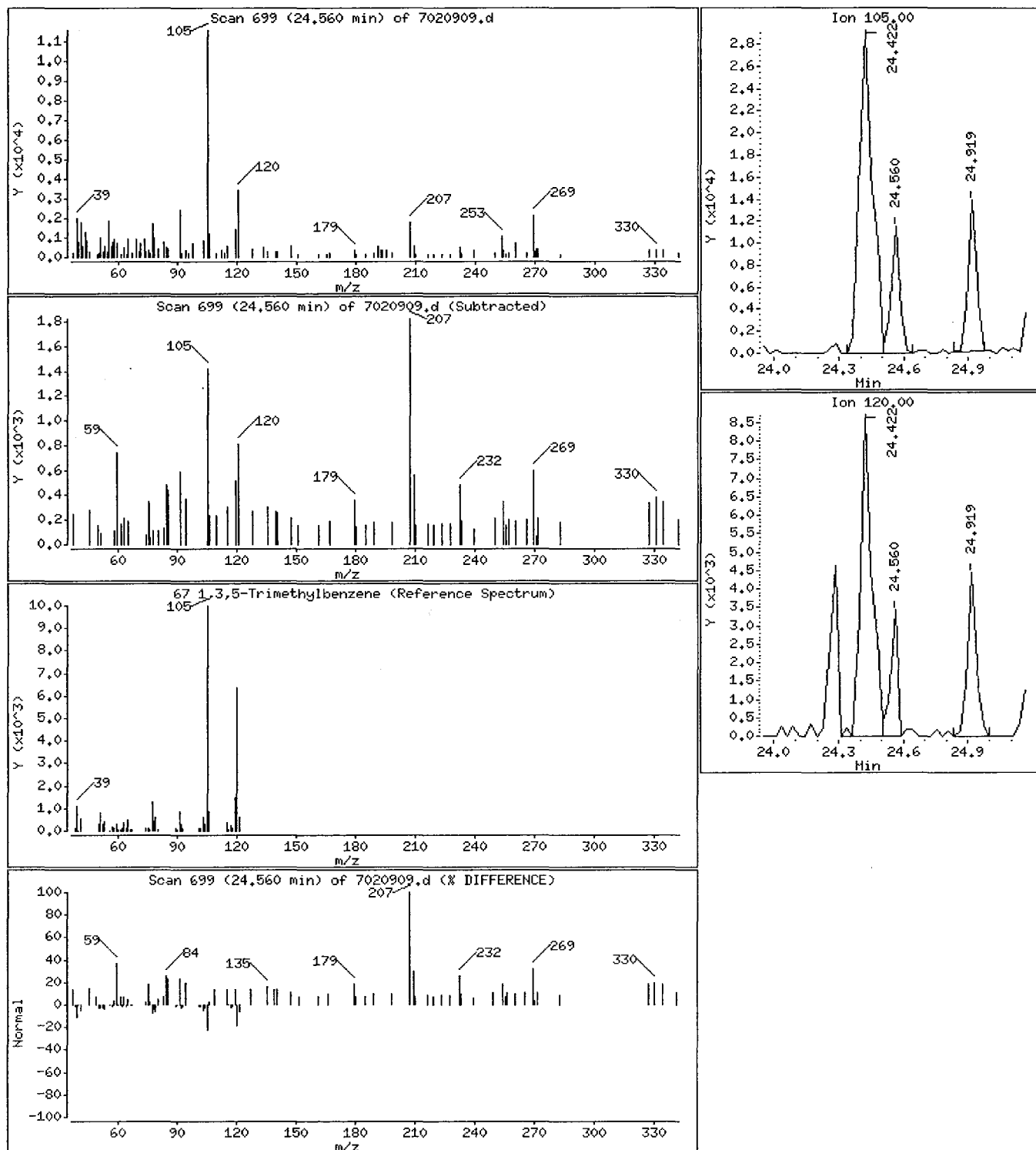
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 0.1837 PPBV



0593

Date : 09-FEB-2005 12:17

Client ID:

Instrument: msd7.i

Sample Info: 500ml Can# 34335

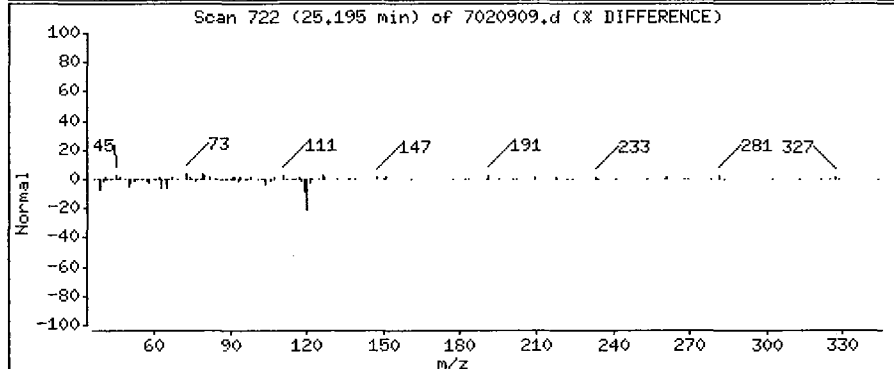
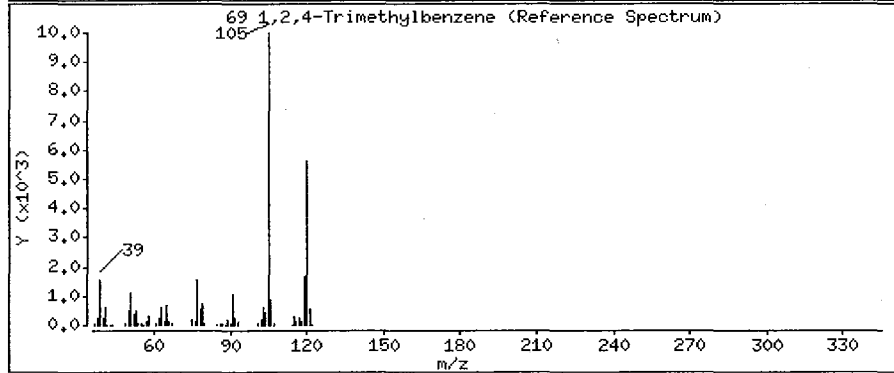
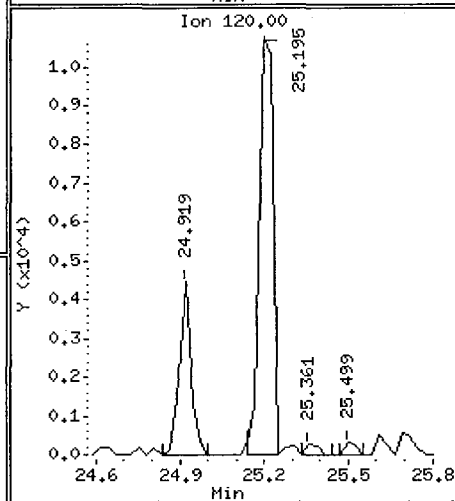
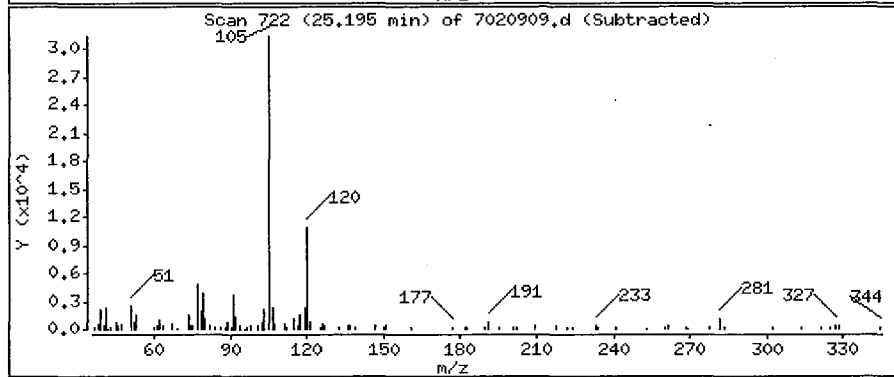
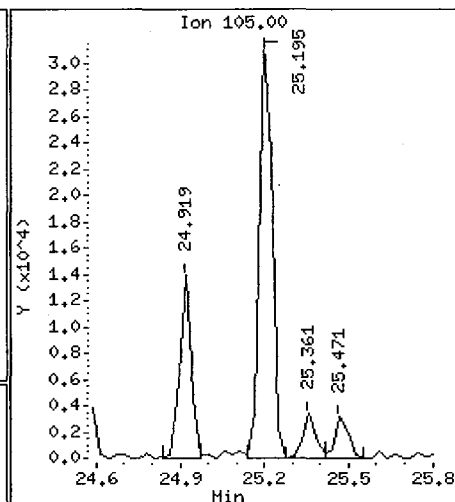
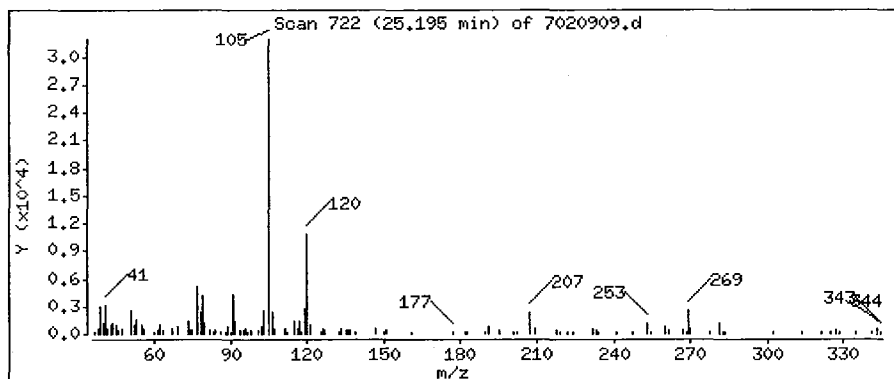
Operator: ts

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 0.6070 PPBV



0594

QC Results and Raw Data

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/05 03:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/05 03:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.50	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	110	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020707.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 08-FEB-2005 03:05
Operator : WW Inst ID: msd7.i
Smp Info : 500mL Can#4290
Misc Info : 500mL Humid
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 08-Feb-2005 09:37 wwong Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT+Retec.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #:	74-97-5		
16.331	16.331	(1.000)	130	478049	10.0000		80.00-	120.00	100.00
16.331	16.331	(1.000)	128	385512			26.96-	126.96	80.64
16.331	16.331	(1.000)	49	858094			126.50-	226.50	179.50

* 38 1,4-Difluorobenzene						CAS #:	540-36-3		
17.794	17.794	(1.000)	114	2260836	10.0000		80.00-	120.00	100.00
17.794	17.794	(1.000)	88	390211			0.00-	67.15	17.26

* 54 Chlorobenzene-d5						CAS #:	3114-55-4		
22.130	22.130	(1.000)	117	1601869	10.0000		80.00-	120.00	100.00
22.130	22.130	(1.000)	82	958498			9.26-	109.26	59.84

\$ 34 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
17.214	17.214	(1.054)	65	1002489	10.1818	10.182	80.00-	120.00	100.00
17.214	17.214	(1.054)	67	461197			0.17-	100.17	46.01

\$ 45 Toluene-d8						CAS #:	2037-26-5		
19.893	19.893	(1.118)	98	1809724	9.38255	9.382	80.00-	120.00	100.00
19.893	19.893	(1.118)	70	229198			0.00-	62.20	12.66

0598

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1339600			19.63- 119.63	74.02	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.953	(1.082)	174	909154	10.9867	10.987	80.00- 120.00	100.00	
23.952	23.953	(1.082)	95	1377149			104.35- 204.35	151.48	
23.952	23.953	(1.082)	176	870514			46.23- 146.23	95.75	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 07-FEB-2005
Lab File ID: 7020707.d	Calibration Time: 22:06
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 500mL Humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	509696	305818	713574	478049	-6.21
38 1,4-Difluorobenze	2384030	1430418	3337642	2260836	-5.17
54 Chlorobenzene-d5	1688502	1013101	2363903	1601869	-5.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0600

SCOEPA00032272

Report Date: 08-Feb-2005 09:38

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-07feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: WW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: AT+Retec.sub
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m
Misc Info: 500mL Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.182	101.82	0-130
\$ 45 Toluene-d8	10.000	9.382	93.83	0-130
\$ 63 Bromofluorobenzene	10.000	10.987	109.87	0-130

0601

SCOEPA00032273

Date : 08-FEB-2005 03:05

Client ID: Lab Blank

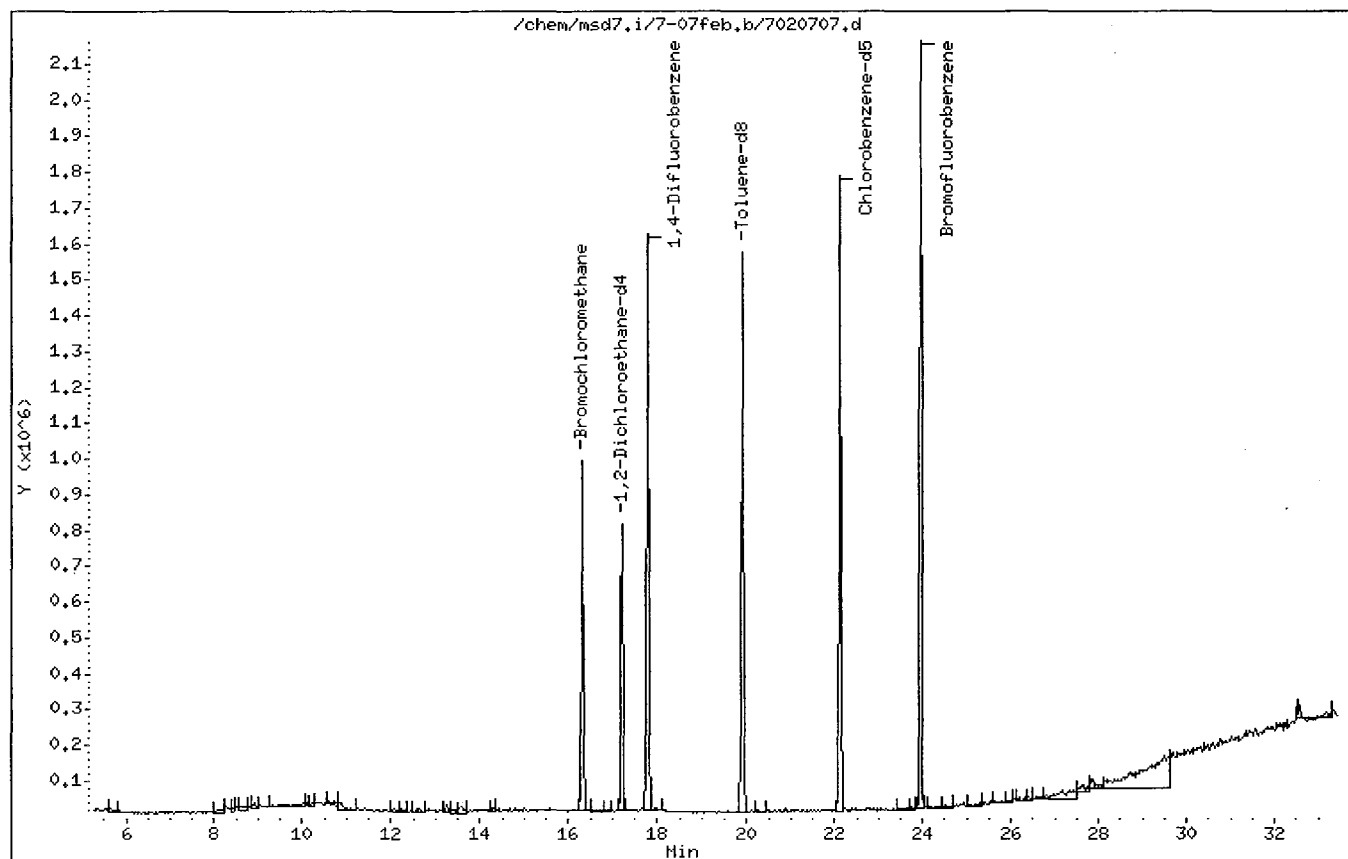
Instrument: msd7.i

Sample Info: 500mL Can#4290

Operator: WW

Column phase: RTX-624

Column diameter: 0.32



0602

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020908	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 11:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020908	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 11:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.50	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020908.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 09-FEB-2005 11:23
Operator : ts Inst ID: msd7.i
Smp Info : Humid Lab Blank
Misc Info : Lab Blank
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 09-Feb-2005 23:48 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT+Retec.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #:	74-97-5		
16.331	16.331	(1.000)	130	457587	10.0000		80.00-	120.00	100.00
16.331	16.331	(1.000)	128	354081			26.96-	126.96	77.38
16.331	16.331	(1.000)	49	805055			126.50-	226.50	175.93

* 38 1,4-Difluorobenzene						CAS #:	540-36-3		
17.794	17.794	(1.000)	114	2059157	10.0000		80.00-	120.00	100.00
17.794	17.794	(1.000)	88	356493			0.00-	67.64	17.31

* 54 Chlorobenzene-d5						CAS #:	3114-55-4		
22.130	22.130	(1.000)	117	1446516	10.0000		80.00-	120.00	100.00
22.130	22.130	(1.000)	82	874385			9.26-	109.26	60.45

\$ 34 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
17.214	17.214	(1.054)	65	969924	10.2915	10.292	80.00-	120.00	100.00
17.214	17.214	(1.054)	67	435930			0.17-	100.17	44.94

\$ 45 Toluene-d8						CAS #:	2037-26-5		
19.893	19.893	(1.118)	98	1720524	9.79375	9.794	80.00-	120.00	100.00
19.893	19.893	(1.118)	70	207854			0.00-	62.11	12.08

0605

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1216680			22.24- 122.24	70.72	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	832160	11.1363	11.136	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1261596			97.68- 197.68	151.60	
23.953	23.953	(1.082)	176	785333			43.78- 143.78	94.37	

0606

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 09-FEB-2005
Lab File ID: 7020908.d	Calibration Time: 00:48
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ts	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: Lab Blank	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	457587	-3.58
38 1,4-Difluorobenze	2234295	1340577	3128013	2059157	-7.84
54 Chlorobenzene-d5	1557243	934346	2180140	1446516	-7.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0607

SCOEPAA00032279

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-09feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ts
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: AT+Retec.sub
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: Lab Blank

SURROGATE COMPOUND	CONC	CONC	% RECOVERED	LIMITS
	ADDED PPBV	RECOVERED PPBV		
\$ 34 1,2-Dichloroethane	10.000	10.292	102.92	70-130
\$ 45 Toluene-d8	10.000	9.794	97.94	70-130
\$ 63 Bromofluorobenzene	10.000	11.136	111.36	70-130

0608

SCOEPA00032280

Data File: /chem/msd7.i/7-09feb.b/7020908.d

Page 1

Date : 09-FEB-2005 11:23

Client ID: Lab Blank

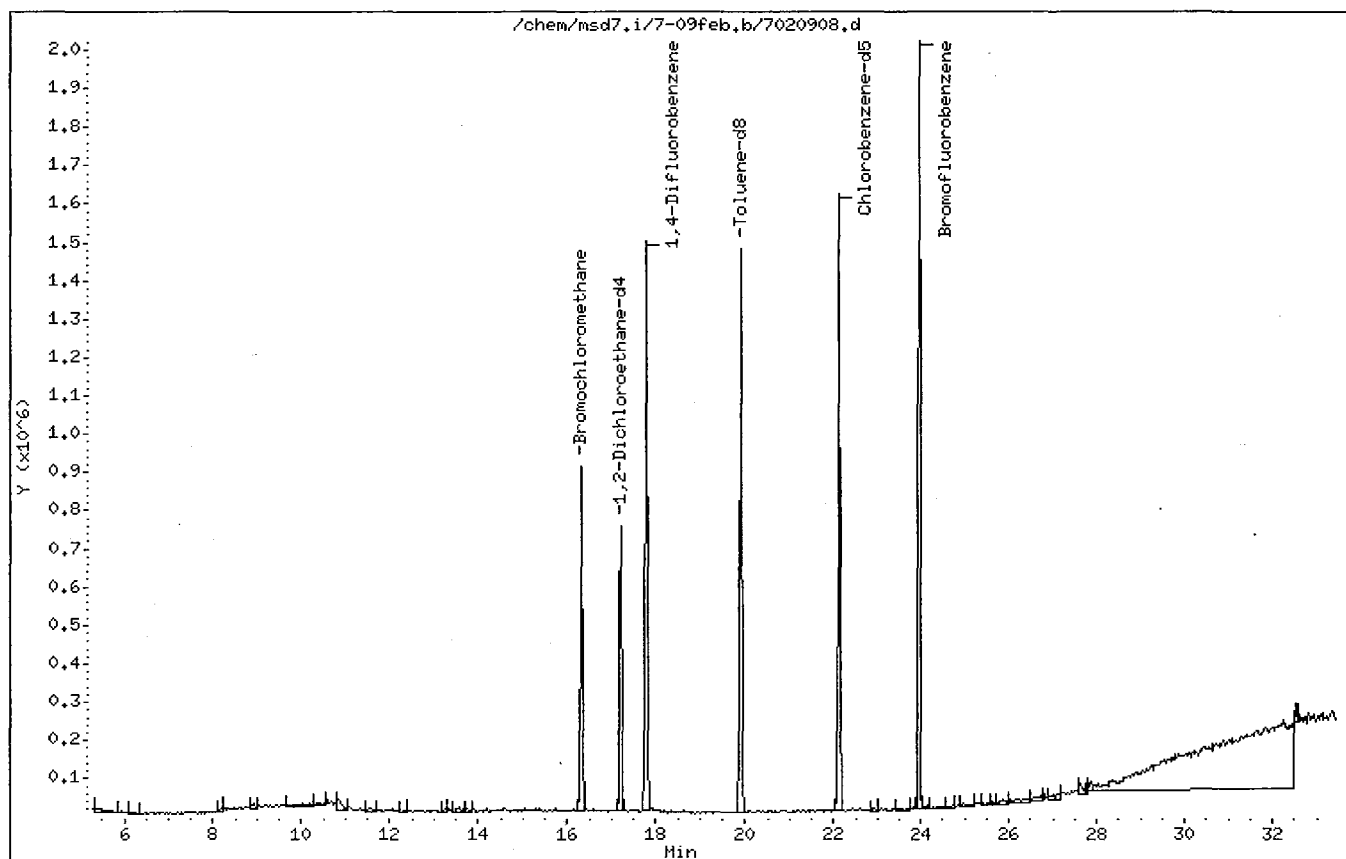
Instrument: msd7.i

Sample Info: Humid Lab Blank

Operator: ts

Column phase: RTx-624

Column diameter: 0.32



0609

SCOEP00032281

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021006	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 05:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0502032-16C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021006	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 05:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.50	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	110	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /var/chem/msd7.i/7-10feb.b/7021006.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 10-FEB-2005 05:45
Operator : WW Inst ID: msd7.i
Smp Info : 500mL Can#4290
Misc Info : 500mL Humid
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 05:16 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT+Retec.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	446316	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	335226			26.96- 126.96	75.11	
16.331	16.331	(1.000)	49	777679			126.50- 226.50	174.24	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2009427	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	347058			0.00- 67.73	17.27	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1431056	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	872286			9.26- 109.26	60.95	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	961211	10.4566	10.457	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	437523			0.17- 100.17	45.52	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1697371	9.90108	9.901	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	206101			0.00- 61.87	12.14	

0612

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1204684			21.49- 121.49	70.97	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	812211	10.9867	10.987	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1251641			102.12- 202.12	154.10	
23.953	23.953	(1.082)	176	780886			47.05- 147.05	96.14	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 10-FEB-2005
Lab File ID: 7021006.d	Calibration Time: 00:57
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 500mL Humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	446316	-4.02
38 1,4-Difluorobenze	2172345	1303407	3041283	2009427	-7.50
54 Chlorobenzene-d5	1516792	910075	2123509	1431056	-5.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
 AREA LOWER LIMIT = - 40% of internal standard area.
 RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0614

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 7-10feb
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: WW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: AT+Retec.sub
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m
Misc Info: 500mL Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.457	104.57	70-130
\$ 45 Toluene-d8	10.000	9.901	99.01	70-130
\$ 63 Bromofluorobenzene	10.000	10.987	109.87	70-130

0615

SCOEPA00032287

Data File: /chem/msd7.i/7-10feb.b/7021006.d

Page 1

Date : 10-FEB-2005 05:45

Client ID: Lab Blank

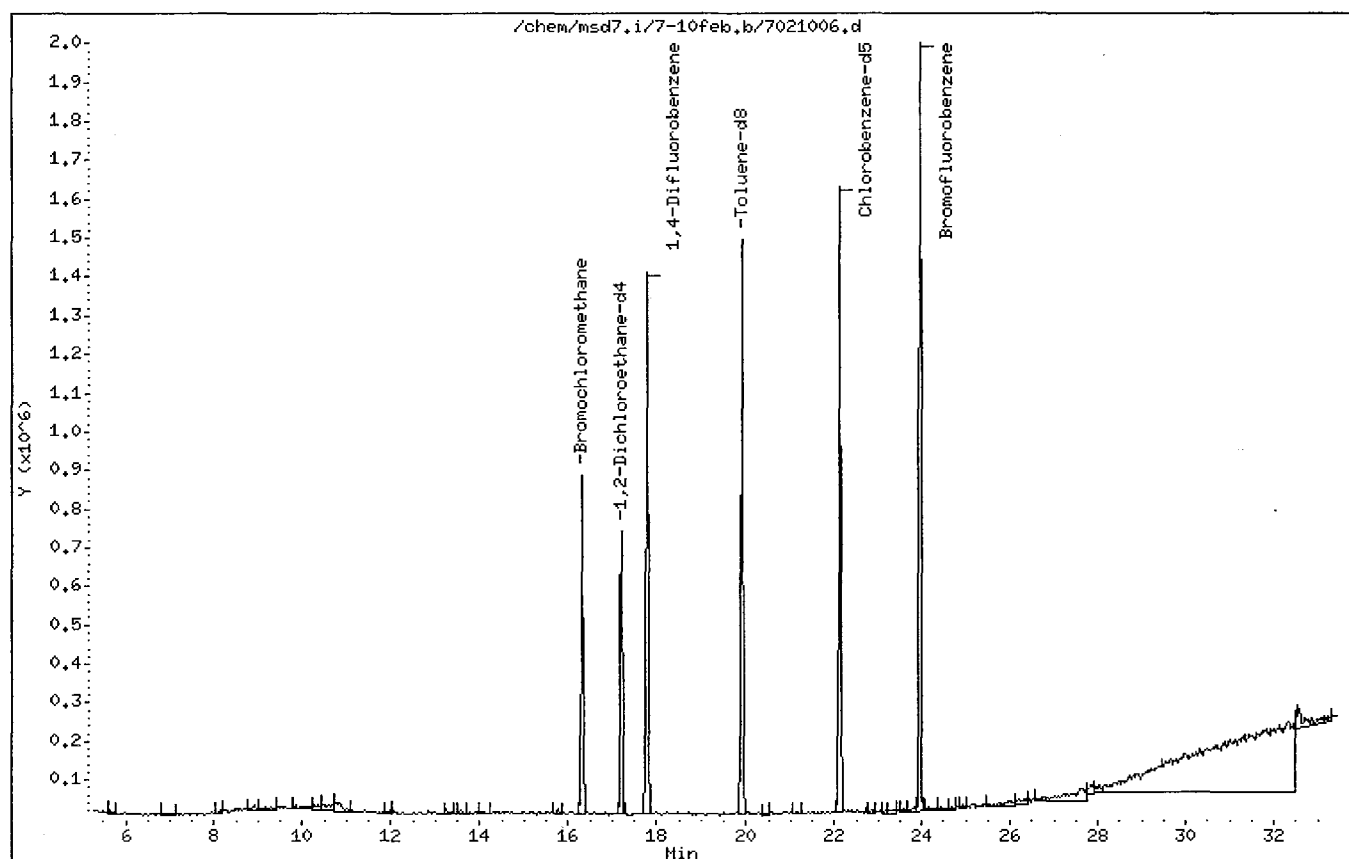
Instrument: msd7.i

Sample Info: 500mL Can#4290

Operator: MM

Column phase: RTX-624

Column diameter: 0.32



0616

SCOEP00032288

LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED.

SDG No.: 0502032

CLIENT SAMPLE NO.	SURROGATE % RECOVERY						TOTAL OUT
	1,2-Dichloroethane-d 4	#	Toluene-d8	#	4-Bromofluorobenze ne	#	
01 #1, Fab 1, Office	108		96		105		0
02 #2, Fab 1, Shipping/Storage	105		101		105		0
03 #3, Roof of Fab 1	107		100		106		0
04 #4, Fab 2, SubFab, Chem Prep	101		98		108		0
05 #5, Fab 2, SubFab, Slicing	102		98		109		0
06 #6, Fab 2, SubFab, Office	100		96		106		0
07 #7, Fab 2, SubFab, Lobby	101		96		109		0
08 #8, Roof of Fab 2	105		95		113		0
09 #9, Central Facilities Bldg, NW Rm	104		98		108		0
10 #9, Central Facilities Bldg, NW Rm Duplicate	104		98		109		0
11 #10, Central Facilities Bldg, Compressor Rm	107		100		106		0
12 #11, Fab 2, Waste Water Treatment	105		97		108		0
13 #12, Outside, South Center Fence	102		101		111		0
14 #13, Outside, Southeast Fence	104		98		104		0
15 #14, Outside, near Guard Shack	106		98		104		0
16 #15, Outside, West of CUB	107		98		105		0
17 Lab Blank	102		94		110		0
18 Lab Blank	103		98		111		0
19 Lab Blank	104		99		110		0
20 CCV	101		100		99		0
21 CCV	106		97		104		0
22 CCV	107		98		100		0
23 LCS	100		97		99		0
24 LCS	103		101		97		0

Surrogate Recovery Limits
 1,2-Dichloroethane-d4 70 - 130
 Toluene-d8 70 - 130
 4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED.

SDG No.: 0502032

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY							TOTAL OUT
			#		#		#		
01	LCS	104		98		99			0
02									0
03									0
04									0
05									0
06									0
07									0
08									0
09									0
10									0
11									0
12									0
13									0
14									0
15									0
16									0
17									0
18									0
19									0
20									0
21									0
22									0
23									0
24									0

Surrogate Recovery Limits

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 0502032

Lab File ID: 7020702.d

Date Analyzed: 02/07/2005

Instrument ID: msd7.i

Time Analyzed: 10:06 PM

	Chlorobenzene-d5			1,4-Difluorobenzene			Bromochloromethane		
	Area	#	RT	Area	#	RT	Area	#	RT
12-HOUR STD	1688502		22.13	2384030		17.79	509696		16.33
UPPER LIMIT	2363903		22.46	3337642		18.12	713574		16.66
LOWER LIMIT	1013101		21.80	1430418		17.46	305818		16.00
CLIENT SAMPLE NO									
01 #6, Fab 2, SubFab, Office	1594832		22.13	2235289		17.79	490873		16.33
02 #7, Fab 2, SubFab, Lobby	1512703		22.13	2184189		17.79	479636		16.33
03 Lab Blank	1601869		22.13	2260836		17.79	478049		16.33
04 CCV	1688502		22.13	2384030		17.79	509696		16.33
05 LCS	1668804		22.13	2409430		17.79	516882		16.33
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 0502032

Lab File ID: 7020902.d

Date Analyzed: 02/09/2005

Instrument ID: msd7.i

Time Analyzed: 12:48 AM

	Chlorobenzene-d5			1,4-Difluorobenzene			Bromochloromethane		
	Area	#	RT	Area	#	RT	Area	#	RT
12-HOUR STD	1557243		22.13	2234295		17.79	474591		16.33
UPPER LIMIT	2180140		22.46	3128013		18.12	664427		16.66
LOWER LIMIT	934346		21.80	1340577		17.46	284755		16.00
CLIENT SAMPLE NO									
01 #15, Outside, West of CUB	1476779		22.13	2070236		17.79	442873		16.33
02 Lab Blank	1446516		22.13	2059157		17.79	457587		16.33
03 CCV	1557243		22.13	2234295		17.79	474591		16.33
04 LCS	1524006		22.13	2153127		17.79	469592		16.33
05									
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 0502032

Lab File ID: 7021002.d

Date Analyzed: 02/10/2005

Instrument ID: msd7.i

Time Analyzed: 12:57 AM

	Chlorobenzene-d5				1,4-Difluorobenzene				Bromochloromethane			
	Area	#	RT		Area	#	RT		Area	#	RT	
12-HOUR STD	1516792		22.13		2172345		17.79		464988		16.33	
UPPER LIMIT	2123509		22.46		3041283		18.12		650983		16.66	
LOWER LIMIT	910075		21.80		1303407		17.46		278993		16.00	
CLIENT SAMPLE NO												
01 Lab Blank	1431056		22.13		2009427		17.79		446316		16.33	
02 CCV	1516792		22.13		2172345		17.79		464988		16.33	
03 LCS	1505814		22.13		2118529		17.79		459857		16.33	
04												
05												
06												
07												
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18												
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20												
21												
22												

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 7020916.d & 7020915.d

Lab Sample ID: 09A & 09AA

Dilution: 1.44 & 1.44

Client Sample ID: &

Date Analyzed: 2/9/05 & 2/9/05

CAS Number	Compound	Original		Duplicate		RPD
		Amount	Flags	Amount	Flags	
75-71-8	Freon 12	1.238		1.288		4.0
76-14-2	Freon 114	ND	U	ND	U	0
74-87-3	Chloromethane	0.4207		0.4052		3.8
75-01-4	Vinyl Chloride	ND	U	ND	U	0
74-83-9	Bromomethane	ND	U	ND	U	0
75-00-3	Chloroethane	ND	U	ND	U	0
75-69-4	Freon 11	3.119		3.03		2.9
75-35-4	1,1-Dichloroethene	ND	U	ND	U	0
76-13-1	Freon 113	0.08509		0.1034		19
75-34-3	1,1-Dichloroethane	ND	U	ND	U	0
156-59-2	cis-1,2-Dichloroethene	ND	U	ND	U	0
67-66-3	Chloroform	0.2124		0.2114		0.47
71-55-6	1,1,1-Trichloroethane	ND	U	ND	U	0
56-23-5	Carbon Tetrachloride	0.1317		0.1242		5.9
71-43-2	Benzene	1.282		1.347		4.9
107-06-2	1,2-Dichloroethane	ND	U	ND	U	0
79-01-6	Trichloroethene	ND	U	ND	U	0
78-87-5	1,2-Dichloropropane	ND	U	ND	U	0
10061-01-5	cis-1,3-Dichloropropene	ND	U	ND	U	0
108-88-3	Toluene	6.869		6.809		0.88
10061-02-6	trans-1,3-Dichloropropene	ND	U	ND	U	0
79-00-5	1,1,2-Trichloroethane	ND	U	ND	U	0
127-18-4	Tetrachloroethene	ND	U	ND	U	0
106-93-4	1,2-Dibromoethane (EDB)	ND	U	ND	U	0
108-90-7	Chlorobenzene	ND	U	ND	U	0
100-41-4	Ethyl Benzene	1.018		1.022		0.39
108-38-3	m,p-Xylene	3.603		3.507		2.7
95-47-6	o-Xylene	1.222		1.215		0.57
100-42-5	Styrene	0.1972		0.1807		8.7
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	ND	U	0
108-67-8	1,3,5-Trimethylbenzene	0.287		0.2372		19
95-63-6	1,2,4-Trimethylbenzene	0.9683		0.9084		6.4
541-73-1	1,3-Dichlorobenzene	ND	U	ND	U	0
106-46-7	1,4-Dichlorobenzene	ND	U	ND	U	0
100-44-7	alpha-Chlorotoluene	ND	U	ND	U	0
95-50-1	1,2-Dichlorobenzene	ND	U	ND	U	0
75-09-2	Methylene Chloride	0.8444		0.7235		15
120-82-1	1,2,4-Trichlorobenzene	ND	U	ND	U	0
87-68-3	Hexachlorobutadiene	ND	U	ND	U	0
106-99-0	1,3-Butadiene	0.1557		0.1778		13
67-64-1	Acetone	2.603		2.546		2.2
75-15-0	Carbon Disulfide	0.177		0.1604		9.8
67-63-0	2-Propanol	27.588		26.732		3.2
156-60-5	trans-1,2-Dichloroethene	ND	U	ND	U	0
78-93-3	2-Butanone (Methyl Ethyl Ketone)	1.075		1.178		9.1
110-54-3	Hexane	1.095		1.071		2.2

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 7020916.d & 7020915.d

Lab Sample ID: 09A & 09AA

Dilution: 1.44 & 1.44

Client Sample ID: &

Date Analyzed: 2/9/05 & 2/9/05

CAS Number	Compound	Original		Duplicate		RPD
		Amount	Flags	Amount	Flags	
109-99-9	Tetrahydrofuran	0.2908		0.2741		5.9
110-82-7	Cyclohexane	0.463		0.4009		14
123-91-1	1,4-Dioxane	ND	U	ND	U	0
75-27-4	Bromodichloromethane	ND	U	ND	U	0
108-10-1	4-Methyl-2-pentanone	3.607		3.694		2.4
591-78-6	2-Hexanone	ND	U	ND	U	0
124-48-1	Dibromochloromethane	ND	U	ND	U	0
75-25-2	Bromoform	ND	U	ND	U	0
622-96-8	4-Ethyltoluene	1.013		0.8942		12
64-17-5	Ethanol	6.002		5.946		0.94
1634-04-4	Methyl tert-butyl ether	ND	U	ND	U	0
142-82-5	Heptane	0.5762		0.5516		4.4
98-82-8	Cumene	ND	U	0.191		-->200<--
103-65-1	Propylbenzene	0.2031		0.1845		9.6
91-20-3	Naphthalene	ND	U	ND	U	0

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 28-JAN-2005 11:14
 End Cal Date : 04-FEB-2005 11:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msd7.i/7-04feb.b/t141J27b.m
 Cal Date : 07-Feb-2005 16:20 nkhan
 Curve Type : Average

Calibration File Names:

Level 1: /chem/msd7.i/7-02feba.b/7020224.d
 Level 2: /chem/msd7.i/7-04feb.b/7020402.d
 Level 3: /chem/msd7.i/7-04feb.b/7020403.d
 Level 4: /chem/msd7.i/7-04feb.b/7020407.d
 Level 5: /chem/msd7.i/7-04feb.b/7020404.d
 Level 6: /chem/msd7.i/7-04feb.b/7020405.d

	0.10000	0.50000	2.000	5.000	20.000	40.000			
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	
1 Dichlorodifluoromethane/Fr12	9.94052	7.38762	7.69201	7.97610	7.43445	8.20358	8.10571	11.743	
2 Propylene	++++	2.41485	2.15524	2.17077	2.22057	2.16314	2.22491	4.908	
3 Freon 114	4.95415	4.03919	4.42054	4.65598	4.28449	4.65581	4.50170	7.163	
4 Chloromethane	1.87489	2.68475	2.46316	2.40143	2.28220	2.31476	2.33686	11.451	
5 Freon 22	++++	++++	++++	++++	++++	++++	++++	++++	
6 Vinyl Chloride	3.15112	2.47655	2.40151	2.53334	2.28103	2.51198	2.55925	11.882	
7 1,3-Butadiene	++++	2.03256	2.06992	2.21581	2.05356	2.28022	2.13042	5.189	
142 Isopentane	++++	2.06633	1.94037	1.93792	2.37160	1.68242	1.99973	12.521	
8 Bromomethane	2.90155	2.08197	1.88502	1.84761	1.75065	1.87930	2.05768	20.764	
9 Chloroethane	1.66499	1.27317	1.12542	1.11975	1.02389	1.10593	1.21886	19.111	
149 Vinyl Bromide	++++	1.65957	1.34660	1.61969	1.61140	1.46491	1.54043	8.513	
10 Trichlorofluoromethane/Fr11	8.07992	6.61976	6.80836	7.14325	6.59768	7.04103	7.04833	7.816	
11 Acrolein	++++	++++	++++	++++	++++	++++	++++	++++	
12 Ethanol	++++	0.90149	0.98366	0.89767	0.99740	1.16625	0.98929	11.017	
13 Pentane	++++	++++	++++	++++	++++	++++	++++	++++	
14 1,1-Dichloroethene	1.65666	1.31659	1.38497	1.50737	1.34362	1.39178	1.43350	8.884	
15 Freon 113	3.45188	2.96460	2.84062	2.88208	2.60959	2.73139	2.91336	9.999	
152 Acetonitrile	++++	1.17534	1.03277	0.99832	0.93758	1.03091	1.03498	8.445	
147 2-Methylpentane	++++	1.51685	1.43490	1.51843	1.63700	1.64011	1.54946	5.684	
16 Acetone	++++	5.98996	5.58107	5.03394	4.70198	5.03984	5.26935	9.707	
17 Carbon Disulfide	++++	6.23549	6.44543	6.81021	6.38644	6.84568	6.54465	4.125	
18 2-Propanol	++++	5.46902	4.63205	4.61658	4.83423	5.35102	4.98058	8.101	
19 Acrylonitrile	++++	1.72213	1.75875	1.72274	1.73757	1.96506	1.78125	5.829	
20 Methylene Chloride	2.71389	2.07744	1.96126	1.94900	1.86016	1.94997	2.08529	15.137	
21 MTBE	++++	5.65823	5.75974	6.01034	5.44999	6.08458	5.79257	4.478	

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Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 28-JAN-2005 11:14
 End Cal Date : 04-FEB-2005 11:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msd7.i/7-04feb.b/t141J27b.m
 Cal Date : 07-Feb-2005 16:20 nkhan
 Curve Type : Average

	0.10000	0.50000	2.000	5.000	20.000	40.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
22 trans-1,2-Dichloroethene	++++	1.61498	1.59893	1.55819	1.43698	1.52597	1.54701	4.570
151 Chlorprene	++++	6.19507	6.34759	6.55628	6.84970	7.72132	6.73399	8.970
23 Tetrahydrofuran	++++	3.59270	2.92563	2.92261	2.75250	2.95704	3.03010	10.712
24 Hexane	++++	4.12550	3.89760	3.97601	3.73594	4.02171	3.95135	3.693
25 1,1-Dichloroethane	4.89164	4.24951	4.03065	4.22814	3.91818	4.30301	4.27019	7.912
26 Vinyl Acetate	++++	1.37555	1.11714	0.51254	1.12378	1.70218	1.16624	37.439<-
148 2,3-Dimethylpentane	++++	0.18316	0.19900	0.19238	0.21547	0.19866	0.19774	5.975
27 cis-1,2-Dichloroethene	1.72298	1.46091	1.39497	1.42723	1.29791	1.37282	1.44614	10.125
28 2-Butanone	1.15152	1.03801	1.08977	1.10646	1.06167	1.10423	1.09194	3.603
30 Chloroform	5.19144	4.53753	4.73642	4.85593	4.49088	4.88921	4.78357	5.380
143 Isooctane	++++	3.30562	2.99197	2.95122	3.23635	3.19980	3.13699	4.984
31 Cyclohexane	++++	2.31684	2.16047	2.32068	1.97050	2.15557	2.18481	6.604
32 1,1,1-Trichloroethane	3.65048	4.20206	3.97386	4.02138	3.63420	4.03415	3.91935	5.819
33 Carbon Tetrachloride	3.92779	3.72226	3.37932	3.50028	3.31891	3.69714	3.59095	6.459
144 Thiophene	++++	0.71966	0.74151	0.72938	0.82504	0.77399	0.75792	5.640
35 Benzene	1.93137	1.52602	1.37815	1.39816	1.21947	1.25452	1.45128	17.881
36 1,2-Dichloroethane	0.73419	0.67827	0.72257	0.73468	0.66942	0.69517	0.70572	4.065
37 Heptane	++++	0.83796	0.84862	0.89213	0.80785	0.85030	0.84737	3.572
39 Trichloroethene	0.48482	0.50362	0.52507	0.55702	0.49066	0.49709	0.50971	5.303
40 1,2-Dichloropropane	0.44697	0.40966	0.42330	0.43536	0.39010	0.40184	0.41787	5.108
41 1,4-Dioxane	++++	0.28757	0.29436	0.31249	0.29766	0.29193	0.29680	3.204
42 Bromodichloromethane	++++	0.87667	0.92921	0.99962	0.93441	0.98679	0.94534	5.225
43 cis-1,3-Dichloropropene	0.60883	0.59752	0.64480	0.66462	0.63463	0.65585	0.63437	4.168
44 4-Methyl-2-pentanone	++++	0.81704	0.90648	0.99566	0.96159	1.00633	0.93742	8.293
46 Toluene	1.94489	1.63195	1.62157	1.66572	1.51761	1.59426	1.66266	8.840
47 trans-1,3-Dichloropropene	0.89389	0.77173	0.79094	0.88039	0.84386	0.89360	0.84573	6.322
48 1,1,2-Trichloroethane	0.61907	0.65822	0.68123	0.71719	0.64129	0.66072	0.66295	5.092
49 Tetrachloroethene	0.90006	0.84720	0.88054	0.91875	0.80988	0.81013	0.86109	5.356
50 2-Hexanone	++++	0.55851	0.64636	0.69862	0.65804	0.70505	0.65331	8.987
51 Dibromochloromethane	++++	0.78788	0.90045	0.99923	0.96540	1.01065	0.93272	9.824
52 Octane	++++	++++	++++	++++	++++	++++	++++	++++
53 1,2-Dibromoethane	0.88994	0.82790	0.93487	0.98027	0.90083	0.94363	0.91291	5.768
55 Chlorobenzene	1.42385	1.42063	1.43319	1.49604	1.37652	1.42654	1.42946	2.685

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Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 28-JAN-2005 11:14
 End Cal Date : 04-FEB-2005 11:49
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msd7.i/7-04feb.b/t141J27b.m
 Cal Date : 07-Feb-2005 16:20 nkhan
 Curve Type : Average

	0.10000	0.50000	2.000	5.000	20.000	40.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
56 Ethyl Benzene	0.84101	0.81145	0.81759	0.85030	0.77815	0.82774	0.82104	3.102
57 m,p-Xylene	1.10225	0.99374	0.96886	1.04609	0.93113	0.98299	1.00418	6.060
58 o-Xylene	0.92776	0.72484	0.82087	0.86184	0.76240	0.80899	0.81778	8.789
59 Styrene	1.32527	1.06254	1.19376	1.34526	1.27768	1.39085	1.26589	9.488
60 Bromoform	+++++	0.50067	0.62020	0.74158	0.73225	0.77521	0.67398	16.776
61 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 Cumene	+++++	1.95791	1.96383	2.06969	1.89049	2.04451	1.98529	3.635
64 1,1,2,2-Tetrachloroethane	1.07634	0.88301	0.92280	1.02992	0.94028	0.98932	0.97361	7.388
65 Propylbenzene	+++++	2.90596	2.69686	2.78454	2.54252	2.72958	2.73189	4.848
66 4-Ethyltoluene	+++++	2.18617	2.23097	2.21334	2.04219	2.22190	2.17892	3.591
67 1,3,5-Trimethylbenzene	2.11307	1.88529	1.88292	1.99207	1.80648	1.91904	1.93315	5.518
145 Indan	+++++	2.13634	2.11079	1.88453	2.02989	1.79903	1.99211	7.325
68 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 1,2,4-Trimethylbenzene	2.00273	1.88976	1.80155	1.86592	1.70174	1.83433	1.84934	5.393
70 1,3-Dichlorobenzene	1.74418	1.37485	1.33833	1.30156	1.08259	1.11307	1.32576	17.932
71 1,4-Dichlorobenzene	1.89028	1.50016	1.39438	1.31985	1.07794	1.10235	1.38083	21.653
146 Indene	+++++	1.81452	1.82738	1.63361	1.72874	1.50518	1.70188	7.911
72 alpha-chlorotoluene	2.00199	1.56146	1.57254	1.48268	1.30092	1.43264	1.55871	15.312
73 1,2-Dichlorobenzene	1.55662	1.32210	1.15599	1.10587	0.95273	0.98378	1.17952	19.268
74 Naphthalene	+++++	4.28440	4.60270	3.99707	4.18982	3.44189	4.10318	10.471
75 1,2,4-Trichlorobenzene	1.38926	1.01431	1.02167	0.99499	0.81216	0.74903	0.99690	22.450
76 Hexachlorobutadiene	0.87758	0.85194	0.79007	0.63930	0.48577	0.47762	0.68705	26.098
34 1,2-Dichloroethane-d4	2.07821	2.07811	1.96686	1.98877	2.09365	2.15203	2.05961	3.364
45 Toluene-d8	0.85765	0.85675	0.85037	0.85139	0.85748	0.84523	0.85314	0.587
63 Bromofluorobenzene	0.54655	0.52033	0.51525	0.49770	0.51299	0.50672	0.51659	3.216

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 28-JAN-2005 11:14
End Cal Date : 04-FEB-2005 11:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd7.i/7-04feb.b/t141J27b.m
Cal Date : 07-Feb-2005 16:20 nkhan
Curve Type : Average

Average %RSD Results.	
=====	
Calculated Average %RSD =	8.72733306
Maximum Average %RSD =	30
* Passed Average %RSD Test.	

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SCOEPA00032299

Calibration History

Method : /chem/msd7.i/7-04feb.b/t141J27b.m
 Start Cal Date: 28-JAN-2005 11:14
 End Cal Date : 04-FEB-2005 11:49

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.10000		
03-FEB-2005 12:33	RetecICAL	/chem/msd7.i/7-02feba.b/7020224.d
31-JAN-2005 18:48	call+B	/chem/msd7.i/7-31jan.b/7013107.d
28-JAN-2005 11:14	callsty	/chem/msd7.i/7-28jan.b/7012802.d
Cal Level: 2 , Cal Amount: 0.50000		
04-FEB-2005 05:06	Sp6	/chem/msd7.i/7-04feb.b/7020402.d
03-FEB-2005 12:33	RetecICAL	/chem/msd7.i/7-02feba.b/7020224.d
31-JAN-2005 16:13	AT-1	/chem/msd7.i/7-31jan.b/7013104.d
Cal Level: 3 , Cal Amount: 2.00000		
04-FEB-2005 05:45	Sp6	/chem/msd7.i/7-04feb.b/7020403.d
02-FEB-2005 22:44	RetecICAL	/chem/msd7.i/7-02feba.b/7020216.d
31-JAN-2005 17:10	AT-1	/chem/msd7.i/7-31jan.b/7013105.d
Cal Level: 4 , Cal Amount: 5.00000		
04-FEB-2005 11:49	Sp6	/chem/msd7.i/7-04feb.b/7020407.d
02-FEB-2005 23:37	RetecICAL	/chem/msd7.i/7-02feba.b/7020217.d
28-JAN-2005 11:56	AT-1	/chem/msd7.i/7-28jan.b/7012803.d
Cal Level: 5 , Cal Amount: 20.00000		
04-FEB-2005 09:34	Sp6	/chem/msd7.i/7-04feb.b/7020404.d
03-FEB-2005 01:36	RetecICAL	/chem/msd7.i/7-02feba.b/7020218.d
28-JAN-2005 12:43	AT-1	/chem/msd7.i/7-28jan.b/7012804.d
Cal Level: 6 , Cal Amount: 40.00000		

0628

|04-FEB-2005 10:13	|Sp6	|/chem/msd7.i/7-04feb.b/7020405.d	|
|03-FEB-2005 02:19	|RetecICAL	|/chem/msd7.i/7-02feba.b/7020219.d	|
|28-JAN-2005 15:28	|AT-1	|/chem/msd7.i/7-28jan.b/7012805.d	|

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 5.000	|		
|04-FEB-2005 11:49	|Sp6	|/chem/msd7.i/7-04feb.b/7020407a.d	|
| Ccal Level: 4 , Ccal Amount: 5.000	|		
|04-FEB-2005 14:17	|Naph	|/chem/msd7.i/7-04feb.b/7020409.d	|
| Ccal Level: 4 , Ccal Amount: 5.000	|		
|04-FEB-2005 11:49	|Sp6	|/chem/msd7.i/7-04feb.b/7020407.d	|
| Ccal Level: 4 , Ccal Amount: 5.000	|		
|28-JAN-2005 11:56	|AT-1	|/chem/msd7.i/7-28jan.b/7012803.d	|

Initial Calibration Narrative

A six point initial calibration was analyzed on January 28, 2005 on MSD-7. As noted on the accompanying analytical run log, the following point Level 1 (File #7013107) was re-analyzed due to a anomalous unacceptable linearity for Benzene.

Some Internal Standards or Surrogates routinely co-elute with target compounds: Bromochloromethane interferes with Chloroform and Tetrahydrofuran; 1,2-Dichloroethane-d4 interferes with Benzene. Background subtraction was performed for each of these instances on the lowest concentration calibration point to document that acceptable spectra may be derived when interference occurs at the Limit of Quantitation. Inclusion of this documentation within the validation package is intended to preclude the need to repeat the exercise for project samples when similar interference from a specific Surrogate or Internal Standard occurs.

BFB Injection Date: 01-28-05
BFB Injection Time: 1039
BFB File ID: 7012801
Tekmar Purge Flow: Z
Vacuum:
IS/S Std.#: Exp. Date:
BCM 574395
1,4-DFB 2663440
CB-d5 1877154
Verified CCV IS vs ICAL mid-point (- 40% D) -

Verify 176/174 m/z Ratio: $\frac{866962}{904086} \times 100 = 95.37\%$

NOAH Cart #: _____ File #: _____

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(\quad)}{(\quad)} \times \frac{(\quad)}{(\quad)} =$$

File ID:	Z
Compound:	
Initials:	

Reported Result ICAL low level

[illegible]

	Set Rate	Actual Rate
10		
11	23 ml/min	25 ml/min
12		
13		
14	47 ml/min	50 ml/min
15		
16	Flow Controller SN# AA00483163	
17	NIST Flowmeter SN# AE3731	
18	Exp: 10-22-05	
19		
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30		
31		
32		

Comments:

N. Khan

1/28/05

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	17.89
75	30.0 - 66.0% of mass 95	42.51
95	Base peak, 100.00% relative abundance	100
96	5.0 - 9.0% of mass 95	6.52
173	Less than 2.0% of mass 174	(0.56) ¹
174	50.0 - 120.0% of mass 95	67.09
175	4.0 - 9.0% of mass 174	(6.65) ¹
176	93.0 - 101.0% of mass 174	(96.21) ¹
177	5.0 - 9.0% of mass 176	(6.21) ²

¹ - value in parenthesis is % mass 174

² - value in parenthesis is % mass 176

Verify 176/174 m/z Ratio: $118.3457 / 122.9952 \times 100 = 96.22\%$

BFB Injection Date: 7013101
 BFB Injection Time: 1302
 BFB File ID: 7013101
 Tekmar Purge Flow: Z
 Vacuum: Z

IS/S Std. #:	Exp. Date:
BCM	
1,4-DFB	
CB-d5	

Verified CCV IS vs ICAL mid-point (-40%D) initials

NOAH Cart #: File #:

Calculation Check:

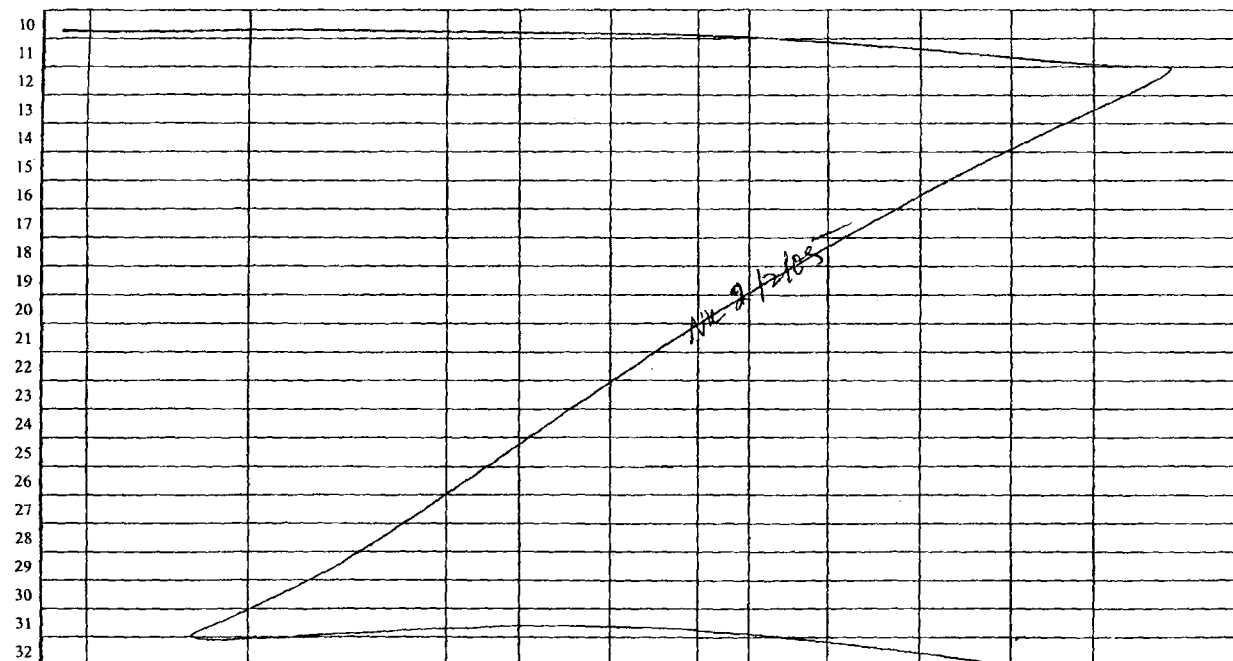
ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \left(\frac{Z}{Z} \right) \times \left(\frac{Z}{Z} \right) =$

File ID:
 Compound: Z
 Initials:

Reported Result

ICAL Low Level B/C

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓ 7013101	BFB Tune check	818-183	50mg	2 mL	1.0	NK	1-31-05	1302	NK	
2	X 7013102	System blank	4290	Humid	500mL	1.0	NK		1319	NK	
3	✓ 7013103	System blank	4290	Humid	500mL	1.0	NK		1418	NK	
4	✓ 7013104	#1243-157 (2.0ppbv)	34471	0.5ppbv	125mL	1.0	NK		1613	NK	Level 2
5	✓ 7013105	#1243-157 (2.0ppbv)	3447	500mL	500mL	1.0	NK		1710	NK	Level 3
6	✓ 7013106	System blank	4290	500mL	500mL	1.0	NK		1755	NK	
7	✓ 7013107	#1243-160 (1.0ppbv)	94456	0.1ppbv	50mL	1.0	NK		1848	NK	Level 1
8	X 7013108	1243-148 (25ppbv)	31332	2.0ppbv	105 mL	1.00	25		1941	NK	LCS
9	✓ 7013109	System Blank	21014	Humid	500 mL	1.00	25		2032	NK	



Comments:

Nikma

2/4/05

062

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	17.49
75	30.0 - 66.0% of mass 95	41.97
95	Base peak, 100.00% relative abundance	100
96	5.0 - 9.0% of mass 95	6.38
173	Less than 2.0% of mass 174	(0.37) ¹
174	50.0 - 120.0% of mass 95	70.80
175	4.0 - 9.0% of mass 174	(6.74) ¹
176	93.0 - 101.0% of mass 174	(95.78) ¹
177	5.0 - 9.0% of mass 176	(6.07) ²

¹ - value in parenthesis is % mass 174² - value in parenthesis is % mass 176Verify 176/174 m/z Ratio: $1245167/1299685 \times 100 = 95.78\%$

NOAH Cart #: —

File #: —

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(1135477)}{(547376)} \times \frac{(10)}{(2.05961)} = 10.0718$$

Reported Result 10.072

File ID:	7020102
Compound:	1,2-DCAdP
Initials:	NK

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments	
1	✓	7020101	BFB Tune check	843-MS	Strong	2.0ml	1.0	NK	2-01-05	1012	NK	
2	✓	7020102	CCV # 1243-148 ¹⁵³	10986	5.0ppw	50ml	1.0	NK		1050	NK	
3	X	7020103	LCS # 1243-148	34332	2.5ppw	50ml	1.0	NK		1147	NK	
4	X	7020104	LCS L	34332	5.0ppw	100ml	1.0	NK		1256	NK	V:avg Average 71107
5	X	7020105	System blank	-	Humid	500ml	1.0	NK		1350	NK	
6	-	7020106	LCS # 1243-148	-	-	-	-	NK		-	NK	
7	X	7020106	Lab blank	1229	Humid	500ml	1.0	NK		1516	NK	
8	✓	7020107	Lab blank	1229	Humid	500ml	1.0	NK		1610	NK	
9	✓	7020108	# 1243-160 (1.0ppw)	34456	0.2ppw	100 ml	1.0	NK		1656	NK	MDL 1

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Rev. 11/04

10	✓	7020109	# 1243-116 (1.0ppw)	34456	0.2ppw	100ml	1.0	NK	2-01-05	1747	NK	MDL 2
11	✓	10	↓	↓	↓	↓	↓	25	↓	1855	NK	MDL 3
12	✓	11	↓	↓	↓	↓	↓	25	↓	1933	NK	MDL 4
13	✓	12	↓	↓	↓	↓	↓	25	↓	2012	NK	MDL 5
14	✓	13	↓	↓	↓	↓	↓	25	↓	2057	NK	MDL 6
15	✓	14	↓	↓	↓	↓	↓	25	↓	2137	NK	MDL 7
16	✓	15	↓	↓	↓	↓	↓	25	↓	2216	NK	MDL 8
17												
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32												

Comments:

N.K. a

2/2/05

1281
1281

~~@Air Toxics Ltd~~



Standard ID: 1243-99A

Analyst: mm

Repressurization Date: 1-5-05

Int/Final Pressure: 15 ps_i

Final Conc: $100 \mu\text{g}/250 \text{ mL}$

RETEC

(Working)

Final Volume: L 12/1/04

[illegible]

Procedure/Comments: The following list was added to an evacuated/
conditioned GL canister (#4154):

- 1) 50 mL of purged H₂O
- 2) 6.0 µL of # 843-1630, Naphthalene; 1000 µg/mL, exp 3/28/05 ✓
- 3) 6.0 µL of # 843-1969, Thiophene, 1000 µg/mL, exp 9/30/05 ✓
- 4) 48 mL of # 1243-97, Indene, 51 ppmv, exp 6/1/05 ✓
- 5) 48 mL of # 1243-98, RETEC Sp, 50 ppmv, exp 6/1/05 ✓
- 6) Pressurized to 15 psi w/ N₂

Final Conc \rightarrow 200 ppbv / 500 $\mu\text{g/L}$ (Thiophene 146 ppbv)

Signed Brandon M. Dunmore Date 12/2/04

37 12/2/04
B. Sober
Reviewed

127404 0634
Date Rev. 04/04

@Air Toxics Ltd.

Logbook #: 1243

Standard ID: 1243-104

Analyst: B. Dunmore

Preparation Date: 12/2/04

Expiration Date: 3/2/05

Bag Blend Standard Calculation:

$$\text{ppmv} = \frac{(\text{Volume added uL})(\text{density g/mL})(1000 \text{ ml/L})(24.055 \text{ L})(\text{Purity*})}{(\text{Formula Weight g})(\text{Final Volume L})}$$

*Standards are corrected for purity when purity is $\leq 96\%$.

Final Volume: L ⁽²⁾ 12/3/04

[illegible]

Procedure/Comments: The following list was added to an evacuated/
conditioned canister (#34405):

- 1) 50 μ l of purged H_2O
- 2) 6.0 μ l of # 843-1727, Naphthalene, 1000 μ g/ml, exp 3/29/05
- 3) 6.0 μ l of # 843-1728, Thiophene, 1000 μ g/ml, exp 3/29/05
- 4) 48 ml of # 1243-102, Indene, 50 ppmv, exp 6/2/05
- 5) 48 ml of # 1243-103, RETEC Sp, 50 ppmv, exp 6/2/05
- 6) Pressurized to 15 psi w/ N_2

Final Conc \rightarrow 200 ppb / 500 mg/L

Brandon M. Dumas 12/2/04

Reviewed

Date 0000 Rev. 04/04

SCOEPA00032307

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	16.71
75	30.0 - 66.0% of mass 95	43.64
95	Base peak, 100.00% relative abundance	100
96	5.0 - 9.0% of mass 95	5.40
173	Less than 2.0% of mass 174	(0.54) ¹
174	50.0 - 120.0% of mass 95	73.78
175	4.0 - 9.0% of mass 174	(6.54) ¹
176	93.0 - 101.0% of mass 174	(99.47) ¹
177	5.0 - 9.0% of mass 176	(6.53) ²

¹ - value in parenthesis is % mass 174² - value in parenthesis is % mass 176Verify 176/174 m/z Ratio: $553760 / 556236 \times 100 = 99.47\%$

BFB Injection Date: 02/02/03
 BFB Injection Time: 7020213 2/2/05 1952
 BFB File ID: 702013
 Tekmar Purge Flow: —
 Vacuum: —

IS/S Std #: 1245-166 Exp. Date: 6/18/05
 BCM
 1,4-DFB
 CB-d5

Verified CCV IS vs ICAL mid-point (-40%_D)

NOAH Cart #: — File #: —

Calculation Check:

ppbv of compound

$$= \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}} = \left(\frac{\quad}{\quad} \right) \times \left(\frac{\quad}{\quad} \right) = \quad$$

File ID:

Compound:

Initials:

Reported Result

Retek ICAL

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1 ✓	7020213	BFB tune check	843-183	50mg	2.0ul	1.0	EA	2/02/05	1952	NK	A+1 peak
2 ✓	14	System blank	1229	—	50ml	1.0	EA	—	2018	NK	
3 X	15	1243-99A	4154	0.5pph	2.5ml	1.0	—	—	2142	NK	Peak 1: 1243
4 ✓	16	—	—	2.0pph	12ml	—	—	—	2244	NK	Peak 2: 1243
5 ✓	17	—	—	5.0pph	25ml	—	—	—	2337	NK	Peak 3: 1243
6 ✓	18	—	—	10pph	50ml	—	—	2/3/05	2136	NK	Peak 4: 1243
7 ✓	19	—	—	20pph	100ml	—	—	—	0207	NK	Peak 5: 1243
8 ✓	20	System Blank	1229	Humid	500ml	—	—	—	0401	NK	Peak 6: 1243
9 X	21	1243-104	34405	10pph	25ml	—	—	—	0525	NK	LCs

10 X	7020222	Lab Blank	1229	Humid	500ml	1.02	—	2/3/05	0607	NK	
11 ✓	7020223	System blank	1	1	1	1	NK	—	11:00	NK	
12 ✓	7020224	# 1248-93 (1.0pph)	9412	0.5pph	250ml	1.0	NK	—	1233	NK	Peak 2
13 X	7020225	# 1248-104 (20pph)	34405	10pph	25ml	1.0	NK	—	1341	NK	Peak 3
14 ✓	7020226	# 1248-104 (20pph)	34405	10pph	25ml	1.0	NK	—	1500	NK	LCs
15											
16											
17											
18											
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27											
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29											
30											
31											
32											

Comments:

N.K.

2/3/05

005

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	17.52
75	30.0 - 66.0% of mass 95	92.68
95	Base peak, 100.00% relative abundance	100.00
96	5.0 - 9.0% of mass 95	639
173	Less than 2.0% of mass 174	(0.52) ¹
174	50.0 - 120.0% of mass 95	69.44
175	4.0 - 9.0% of mass 174	(6.71) ¹
176	93.0 - 101.0% of mass 174	(96.97) ¹
177	5.0 - 9.0% of mass 176	(6.15) ²

¹ - value in parenthesis is % mass 174² - value in parenthesis is % mass 176Verify 176/174 m/z Ratio: $\frac{1318929}{1360042} \times \frac{100}{96.97} = 96.78$

BFB Injection Date: 02/04/05
 BFB Injection Time: 0324
 BFB File ID: 7020401
 Tekmar Purge Flow:
 Vacuum: 1.0 x 10⁻⁵ Torr
 IS/STD #: 1245-166 Exp. Date: 6/27/05
 BCM: 536594
 1,4-DFB: 242411
 CB-d5: 1781273
 Verified CCV IS vs ICAL mid-point (-40% D) AK

NOAH Cart #: _____

File #: _____

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}} = \left(\frac{582411}{536594} \right) \times \left(\frac{10}{2.17077} \right) = 4.878$$

Reported Result

File ID: 7020407
 Compound: Propylene
 Initials: AK

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓ 7020401	BFB Tune check	843183	SDage	2.0ml	1.0	✓	2/4/05	0334	✓	
2	✓ 02	#1243-163 (200ppbv)	74302	0.5ppbv	1.25ml				0506	NK	Level 2
3	✓ 03			2.0ppbv	5.0ml				0545	NK	Level 3
4	✓ 04			10ppbv	12.5ml		NK			NK	Level 5
5	✓ 05			20ppbv	50ml		NK			NK	Level 6
6	✓ 06	System blank	11000	5ppbv	50ml		NK			NK	
7	✓ 07	#1243-163 (200ppbv)	94302	50ppbv	12.5ml		NK			NK	Level 2 CCV
8	✗ 08	#1243-99A (100ppbv)	41574	5.0ppbv	25ml		NK			NK	
9	✓ 09	#1243-99A	41574	2.85ppbv	25ml		NK			NK	CCV Napthalene

10	✗ 7020410	#1243-104	34405	4.5ppbv	2.5ml	1.0	NK	2/4/05	1517	NK	LCs Napthalene
11	✓ 7020411	#1243-148	34332	5.0ppbv	100ml		NK		1604	NK	LCs Napthalene
12	✓ 7020412	#1243-14 System blank			500ml		NK		1659	NK	LCs Napthalene
13	✓ 7020413	#1243-104	34405	4.8ppbv	2.5ml		NK		1744	NK	LCs Napthalene
14	✓ 7020414	Lab blank	4290	Blank	50ml		NK		1830	NK	
15	✓ 15	MDL #1	#1243-174 41574	6.48ppbv	5.0ml	1.0	AB		1921	NK	
16	✓ 16	MDL #2	#1243-163 41574	1.0ppbv	2.5ml		AB		2006	NK	
17	✓ 17	MDL #3					NK		2047	NK	
18	✓ 18	MDL #4					NK		2129	NK	
19	✓ 19	MDL #5					NK		2208	NK	
20	✓ 20	MDL #6					AB		2248	NK	
21	✓ 21	MDL #7					AB		2337	NK	
22											
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32											

Comments:

@Air Toxics Ltd.

Logbook #: 1243

Standard ID: 1243-163

Analyst: L Ford

Preparation Date: 2.3.5

Expiration Date: 4-12-5

Bag Blend Standard Calculation:

$$\text{ppmv} = \frac{(\text{Volume added uL}) (\text{density g/mL}) (1000 \text{ ml/L}) (24.055 \text{ L}) (\text{Purity*})}{(\text{Formula Weight g}) (\text{Final Volume L})}$$

*Standards are corrected for purity when purity is $\leq 96\%$.

Final Volume: L 235
4

[illegible]

Procedure/Comments: Add the following to a conditioned / evacuated
6.0L Canister # 94302

- ① 1.7 ml # 843-1199 (Chloroprene), lot 303-15B, $\frac{5000\text{ug}}{\text{ml}}$, Exp 5-1-5
 - ② 40 ml # 1243-48, 60 ppmv, Exp 4-12-05 (224-Tmp + Allyl Chloride)
 - ③ 48 ml # 1245-61, 50 ppmv, Exp 4-27-05 (EtOH + Propylene)
 - ④ 48 ml # 1243-135, 50 ppmv, Exp 7-5-05 (Acrylonitrile + Acetonitrile)
 - ⑤ 48 ml # 1243-74, 50 ppmv, Exp 5-15-05 (Vinyl Bromide)
- Pressurize w/ N_2 to 15 psi
 - Final Concentration \longrightarrow 200 ppmv

2-3-5 4

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020411.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 04-FEB-2005 16:04
Operator : NK Inst ID: msd7.i
Smp Info : #1243-148[100ppbv]
Misc Info : 5.0ppbv[100ml] propylene
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 07-Feb-2005 09:29 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Propy+Ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	540289	10.0000		80.00-	120.00	100.00
16.331	16.331	(1.000)	128	427283			26.96-	126.96	79.08
16.331	16.303	(1.000)	49	996771			126.50-	226.50	184.49

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2549571	10.0000		80.00-	120.00	100.00
17.794	17.794	(1.000)	88	421980			0.00-	66.94	16.55

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1900190	10.0000		80.00-	120.00	100.00
22.130	22.130	(1.000)	82	1085335			9.26-	109.26	57.12

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	1084602	9.74675	9.747	80.00-	120.00	100.00
17.214	17.214	(1.054)	67	530800			0.17-	100.17	48.94

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	2181717	10.0302	10.030	80.00-	120.00	100.00
19.893	19.893	(1.118)	70	251136			0.00-	61.88	11.51

0639

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1562193			21.87- 121.87	71.60

\$ 63 Bromofluorobenzene								
					CAS #: 460-00-4			
23.953	23.953	(1.082)	174	938339	9.55913	9.559	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1446274			105.79- 205.79	154.13
23.953	23.953	(1.082)	176	905149			45.74- 145.74	96.46

2 Propylene								
					CAS #: 115-07-1			
5.644	5.671	(0.346)	41	705943	5.87260	5.873	80.00- 120.00	100.00
5.644	5.671	(0.346)	42	475627			19.57- 119.57	67.37
5.644	5.671	(0.346)	39	526638			24.97- 124.97	74.60

12 Ethanol								
					CAS #: 64-17-5			
12.050	12.023	(0.738)	45	269565	5.04328	5.043	80.00- 120.00	100.00
12.050	12.023	(0.738)	43	57487			0.00- 76.71	21.33
12.050	12.023	(0.738)	46	107574			0.00- 90.17	39.91

0640

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 04-FEB-2005
Lab File ID: 7020411.d	Calibration Time: 14:17
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 5.0ppbv[100ml] propylene	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	561295	336777	785813	540289	-3.74
38 1,4-Difluorobenze	2578655	1547193	3610117	2549571	-1.13
54 Chlorobenzene-d5	1828522	1097113	2559931	1900190	3.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0641

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-04feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: NK
Data Type: MS DATA	SampleType: LCS
SpikeList File: propy+Ethanol.spk	Quant Type: ISTD
Sublist File: Propy+Ethanol.sub	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 5.0ppbv[100ml] propylene	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.873	117.45	60-140
12 Ethanol	5.000	5.043	100.87	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	9.747	97.47	70-130
\$ 45 Toluene-d8	10.000	10.030	100.30	70-130
\$ 63 Bromofluorobenzene	10.000	9.559	95.59	70-130

0642

Data File: /chem/msd7.i/7-04feb.b/7020411.d

Page 1

Date : 04-FEB-2005 16:04

Client ID: LCS

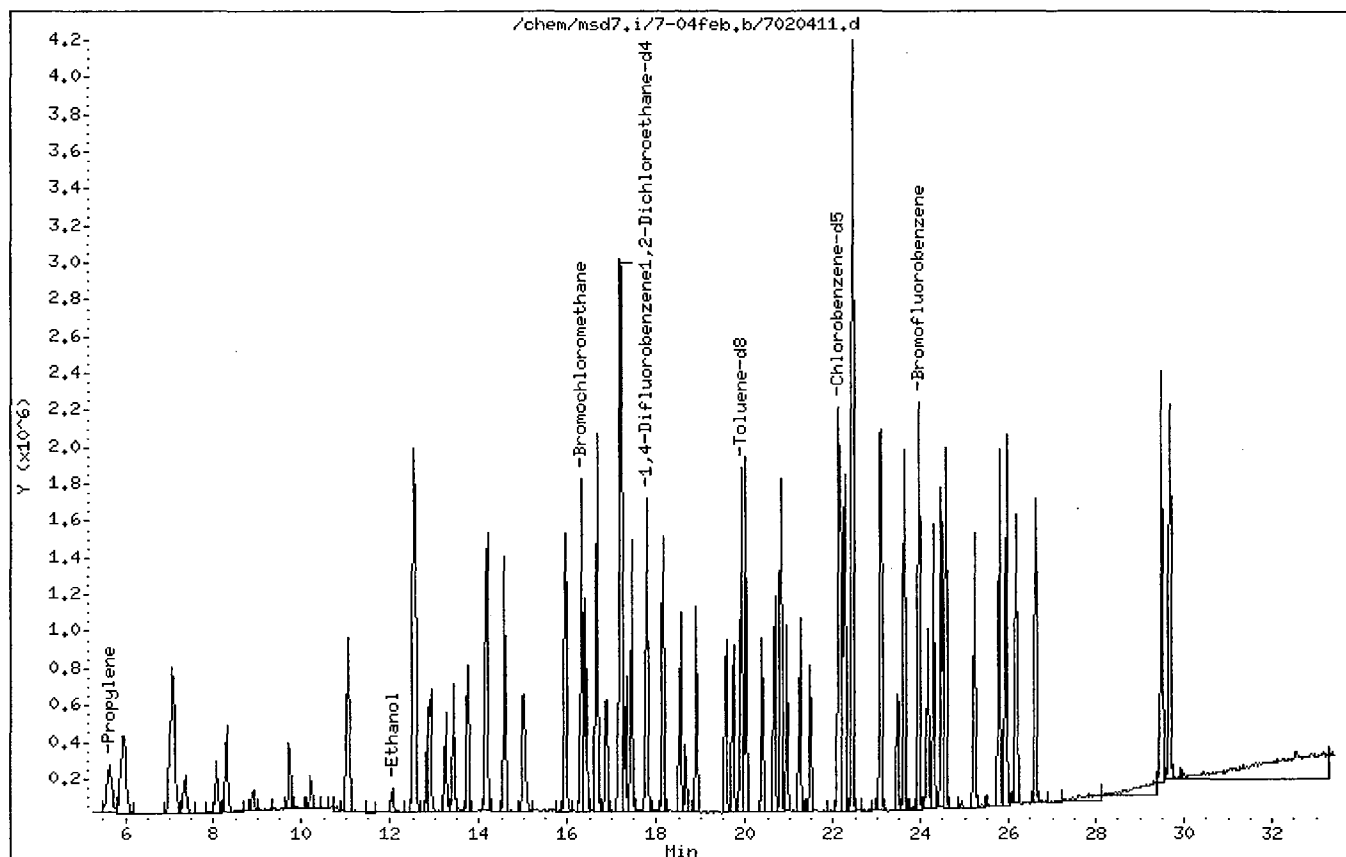
Instrument: msd7.i

Sample Info: #1243-148[100ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0643

SCOEPA00032315

Date : 04-FEB-2005 16:04

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[100ppbv]

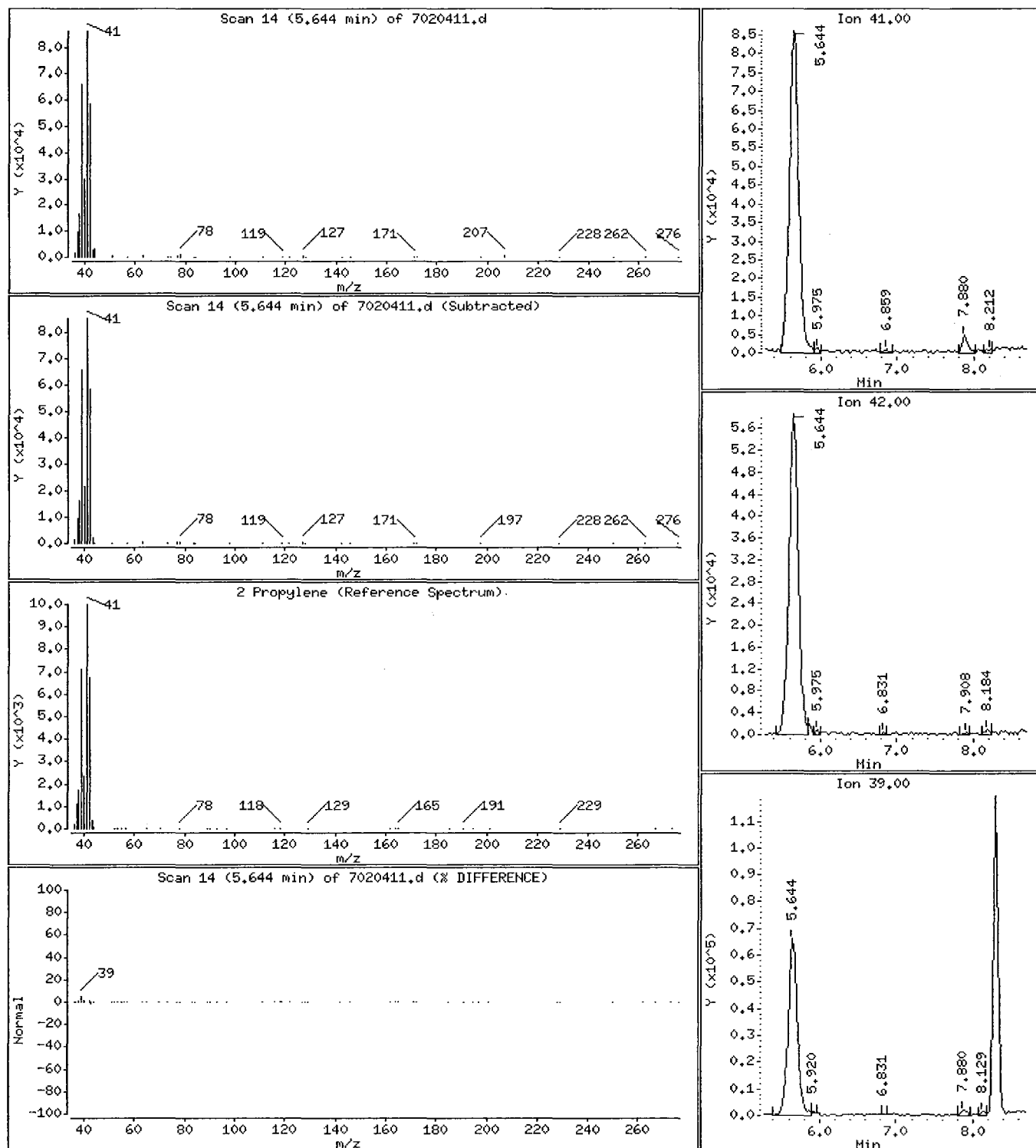
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

2 Propylene

Concentration: 5.873 PPBV



0644

Date : 04-FEB-2005 16:04

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[100ppbv]

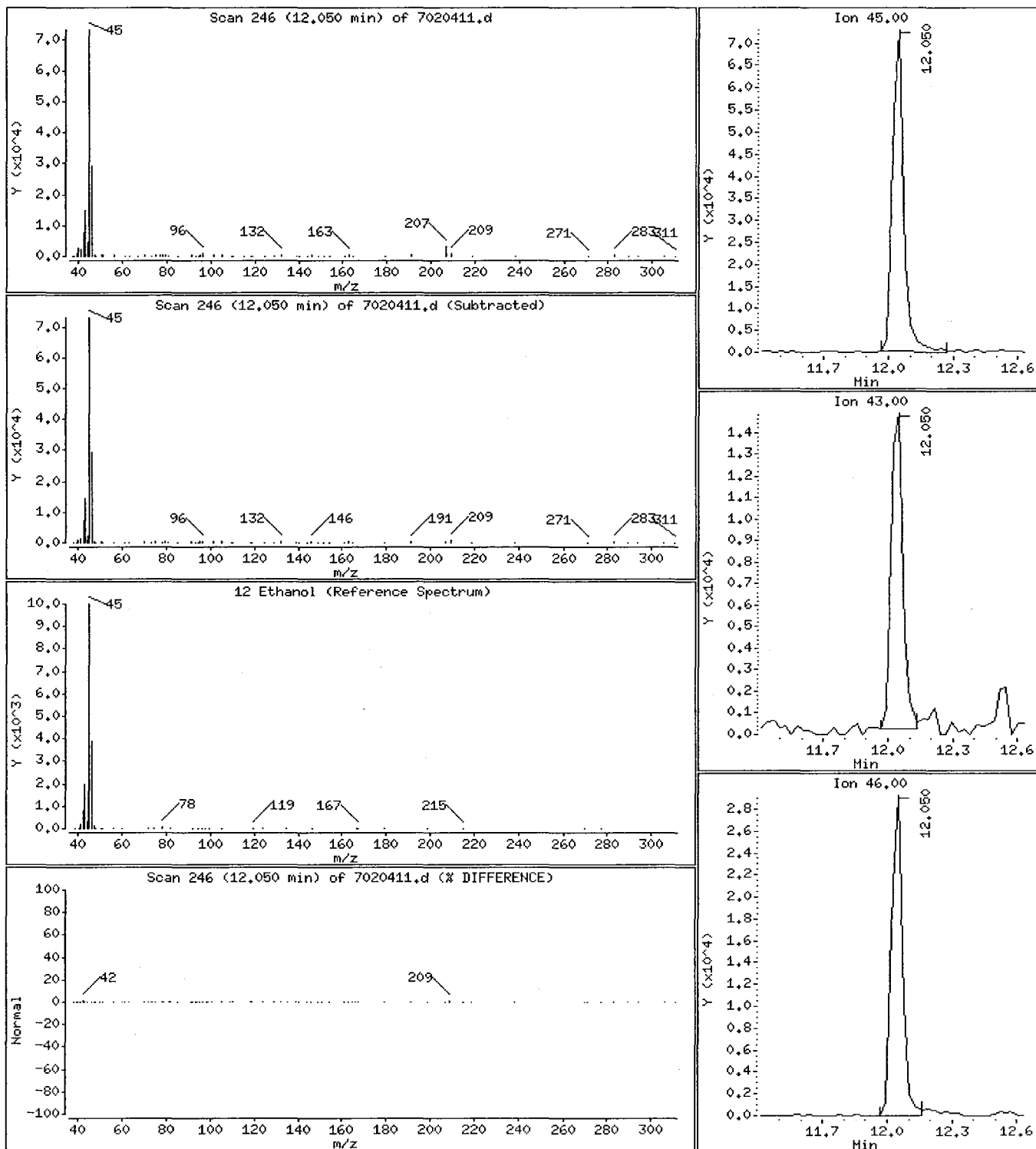
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 5.043 PPBV



0645

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020226.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 03-FEB-2005 15:00
Operator : NK Inst ID: msd7.i
Smp Info : #1248-104[200/500ng]
Misc Info : 10ppbv[25ml]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 08-Feb-2005 08:30 wwrong Quant Type: ISTD
Cal Date : 03-FEB-2005 12:33 Cal File: 7020224.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecCCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(PPBV)	(PPBV)
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	556273	10.0000		
\$ 34 1,2-Dichloroethane-d4	65	17.211	17.211	(1.054)	1112464	9.70987	9.710	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2677111	10.0000		
\$ 45 Toluene-d8	98	19.917	19.917	(1.120)	2090003	9.15078	9.151	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1790890	10.0000		
\$ 63 Bromofluorobenzene	174	23.949	23.949	(1.082)	956361	10.3344	10.334	
142 Isopentane	57	10.362	10.390	(0.635)	1216764	10.9382	10.938	
147 2-Methylpentane	71	13.593	13.566	(0.833)	830004	9.62968	9.630	
148 2,3-Dimethylpentane	71	16.686	16.686	(0.938)	493174	9.31640	9.316	
143 Isooctane	56	17.183	17.183	(1.052)	1622237	9.29636	9.296	
144 Thiophene	84	17.542	17.542	(0.986)	1434337	7.06908	7.069	
145 Indan	117	26.324	26.324	(1.190)	3100413	8.69033	8.690	
146 Indene	115	26.738	26.738	(1.208)	2891572	9.48713	9.487	
74 Naphthalene	128	29.969	29.969	(1.354)	3063923	4.16955	4.170	

0646

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 02-FEB-2005
Lab File ID: 7020226.d	Calibration Time: 23:37
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m	
Misc Info: 10ppbv[25ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	556273	-0.36
38 1,4-Difluorobenze	2615588	1569353	3661823	2677111	2.35
54 Chlorobenzene-d5	1815836	1089502	2542170	1790890	-1.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
 AREA LOWER LIMIT = - 40% of internal standard area.
 RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0647

Report Date: 08-Feb-2005 08:30

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-02feba
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: NK
Data Type: MS DATA	SampleType: LCS
SpikeList File: RetecLCS.spk	Quant Type: ISTD
Sublist File: RetecCCV.sub	
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m	
Misc Info: 10ppbv[25ml]	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
142 Isopentane	10.000	10.938	109.38	60-140
147 2-Methylpentane	10.000	9.630	96.30	60-140
148 2,3-Dimethylpentan	10.000	9.316	93.16	60-140
143 Isooctane	10.000	9.296	92.96	60-140
144 Thiophene	7.300	7.069	96.84	60-140
145 Indan	10.000	8.690	86.90	60-140
146 Indene	10.000	9.487	94.87	60-140
74 Naphthalene	4.800	4.170	86.87	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	9.710	97.10	70-130
\$ 45 Toluene-d8	10.000	9.151	91.51	70-130
\$ 63 Bromofluorobenzene	10.000	10.334	103.34	70-130

0648

SCOEPA00032320

Data File: /chem/msd7.i/7-02feba,b/7020226.d

Page 1

Date : 03-FEB-2005 15:00

Client ID: LCS

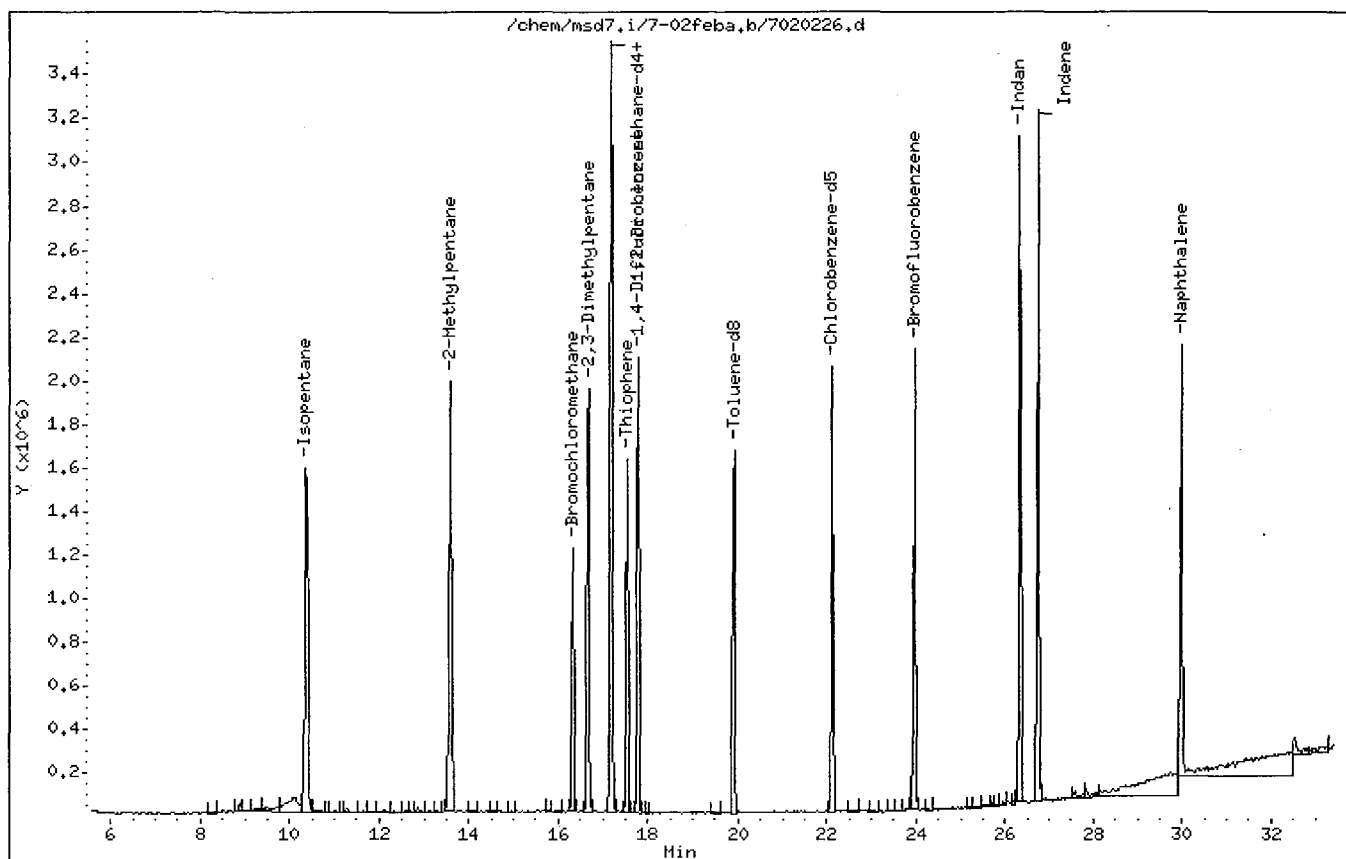
Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0649

SCOEPAA00032321

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

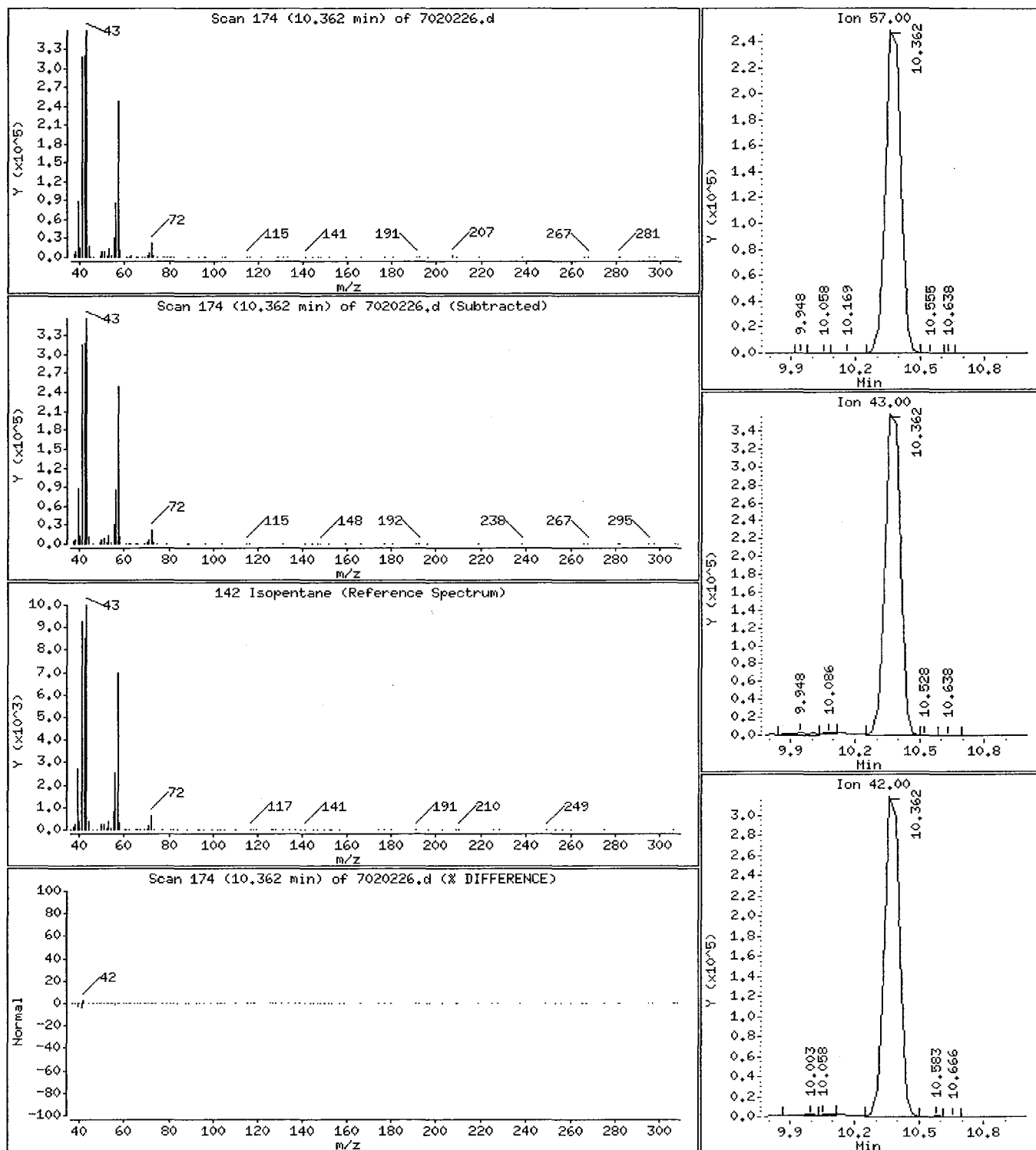
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

142 Isopentane

Concentration: 10.938 PPBV



0650

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

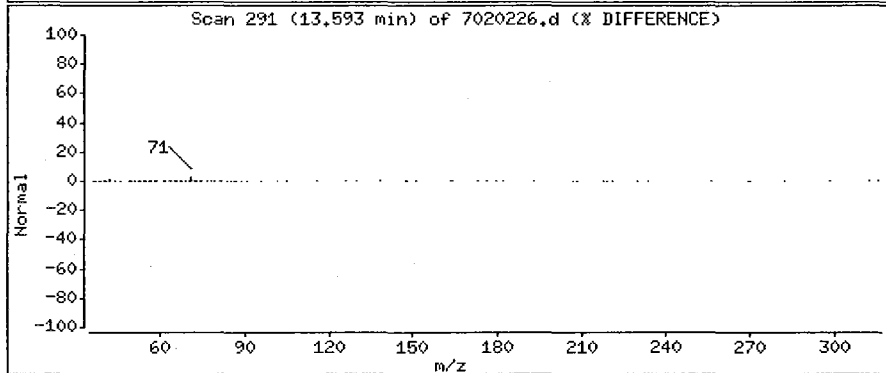
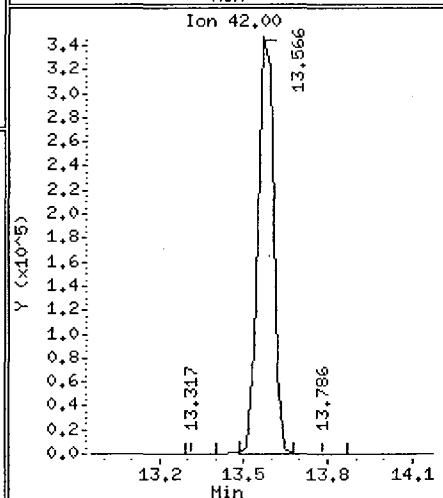
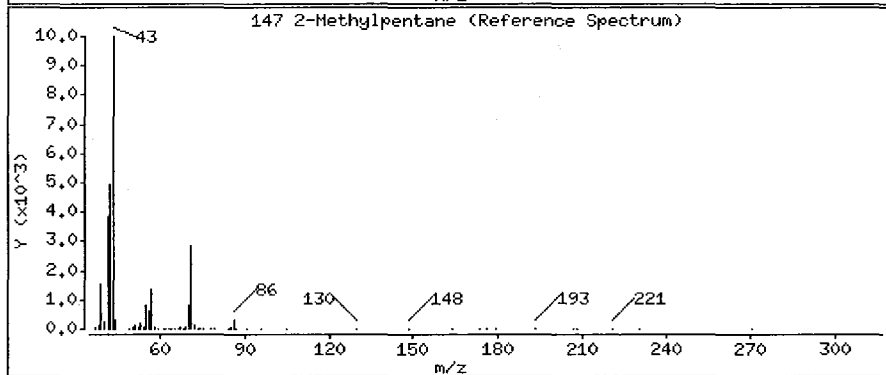
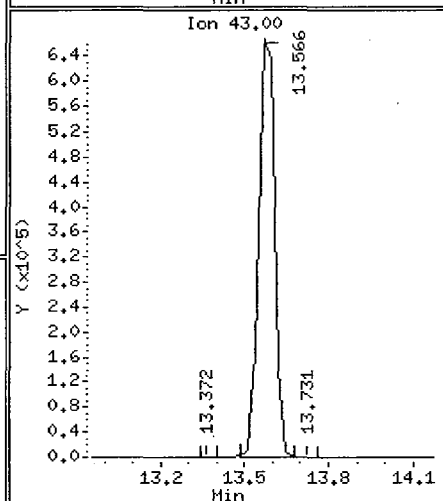
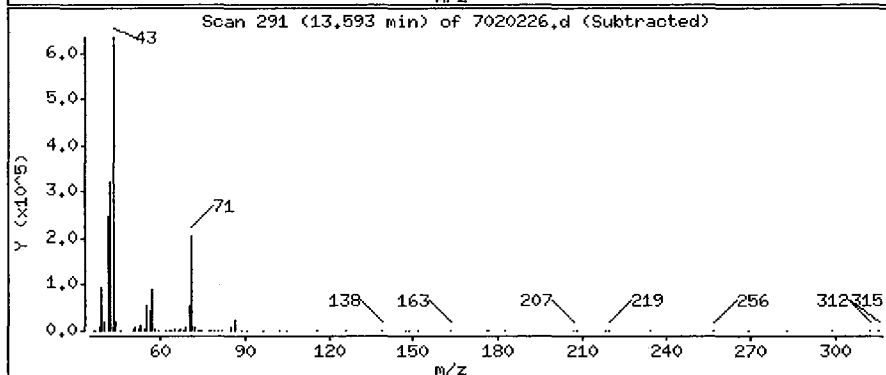
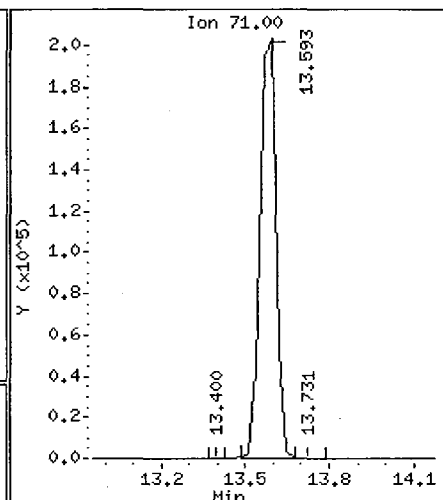
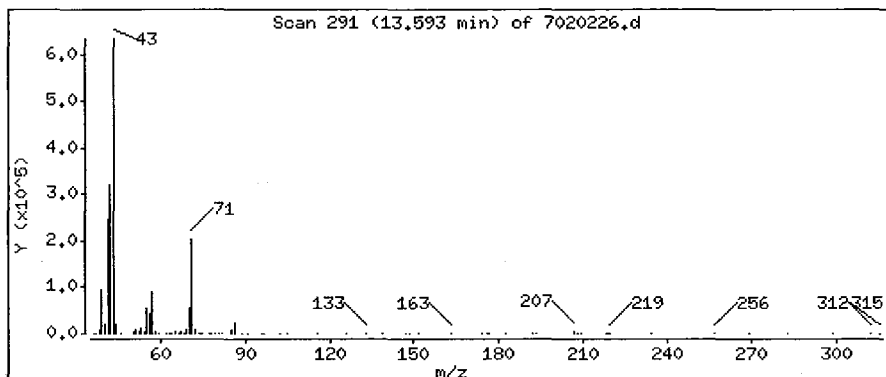
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

147 2-Methylpentane

Concentration: 9,630 PPBV



0651

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

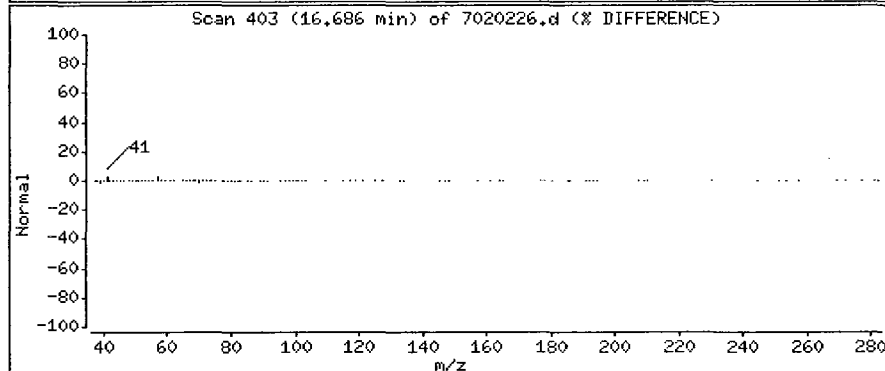
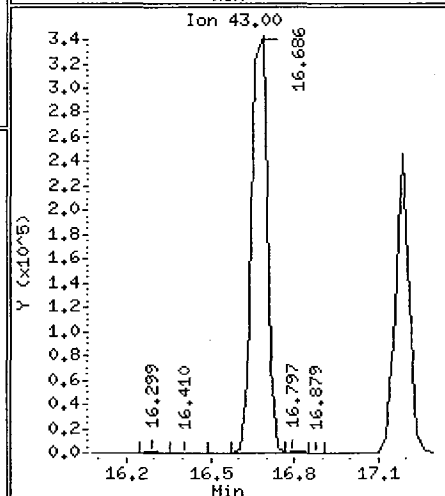
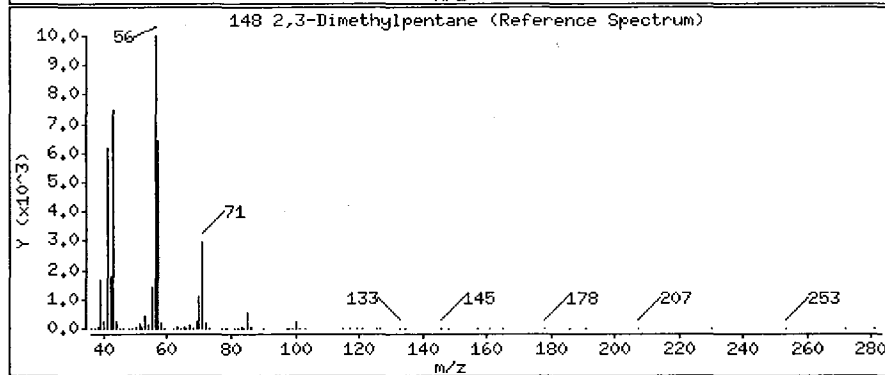
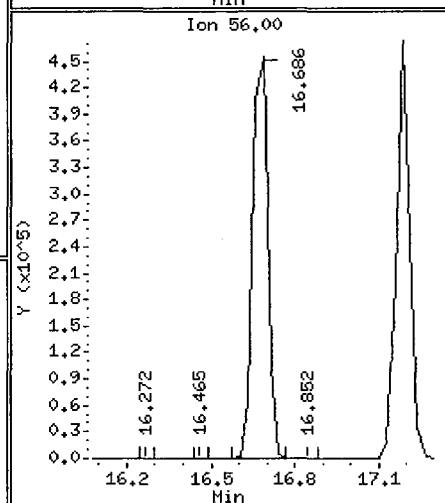
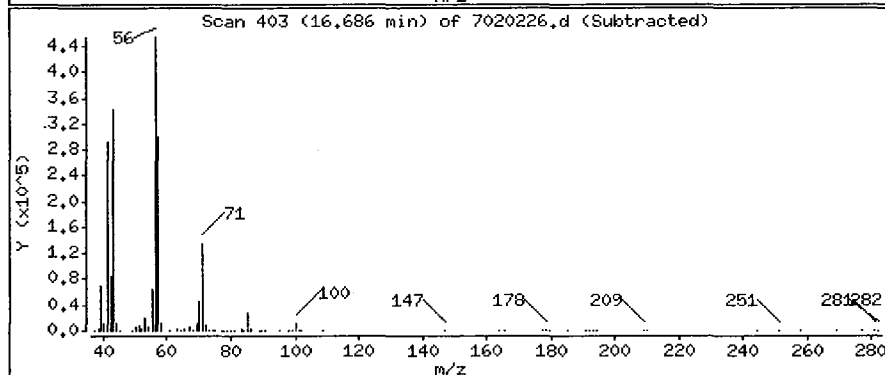
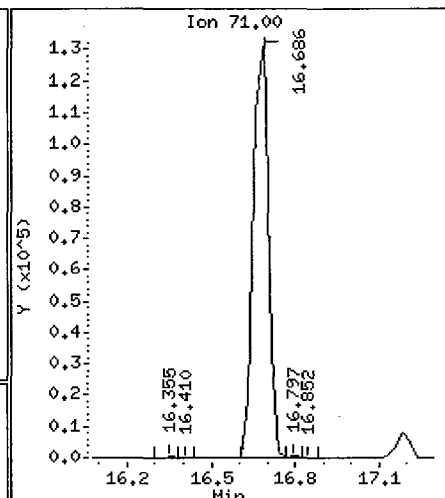
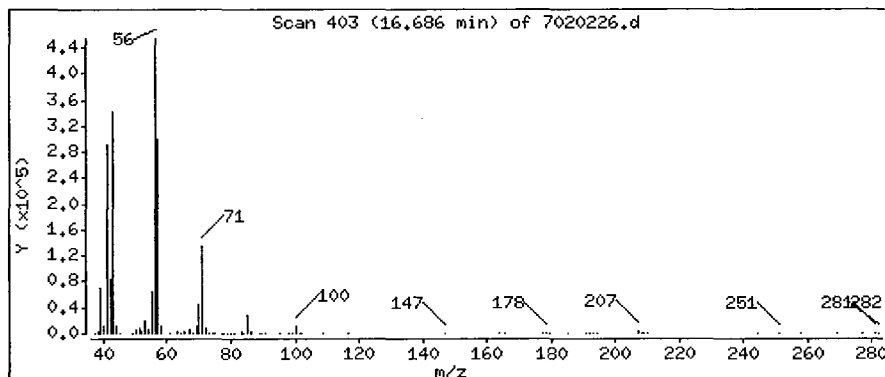
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

148 2,3-Dimethylpentane

Concentration: 9.316 PPBV



0652

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

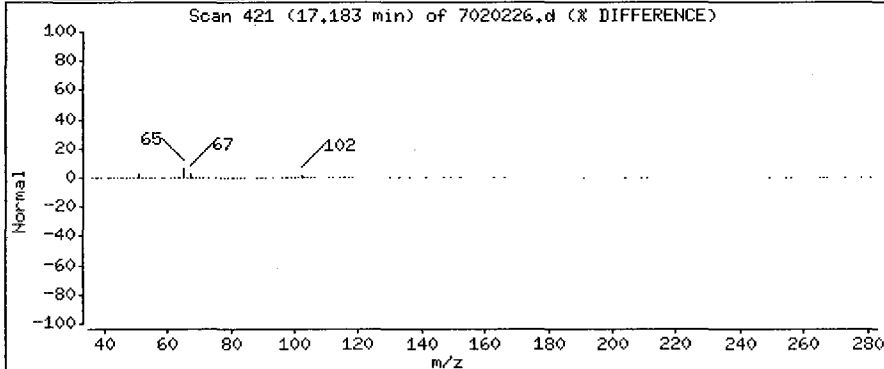
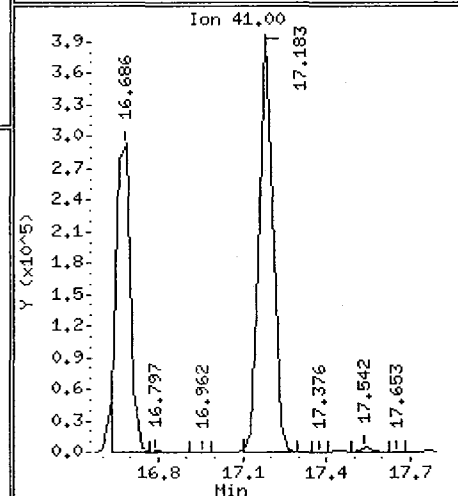
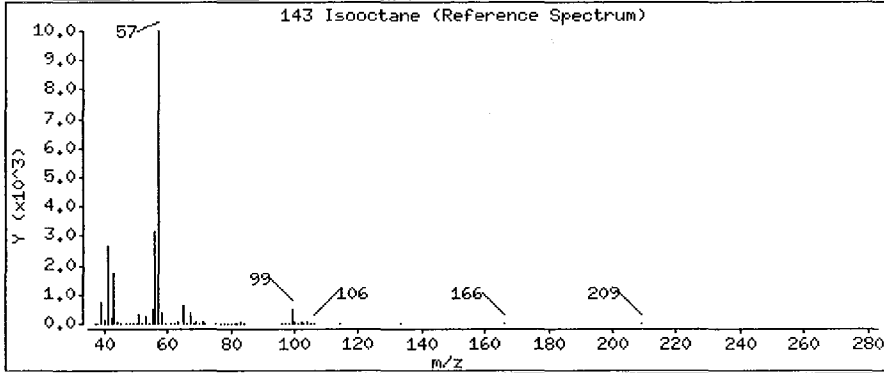
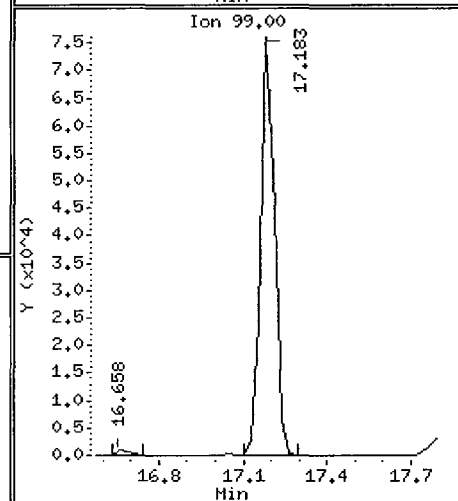
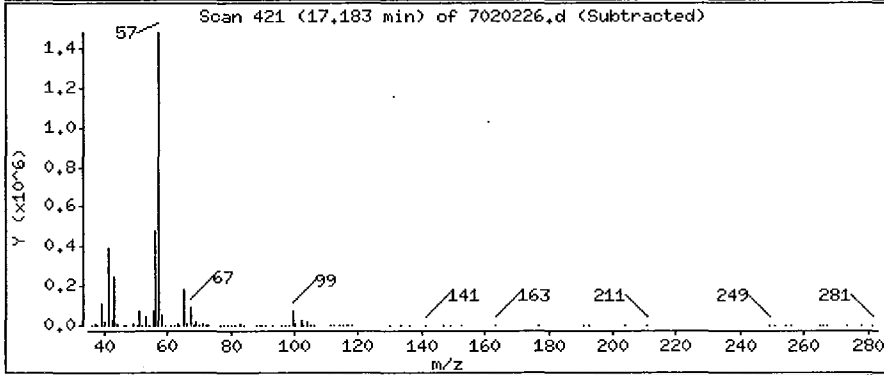
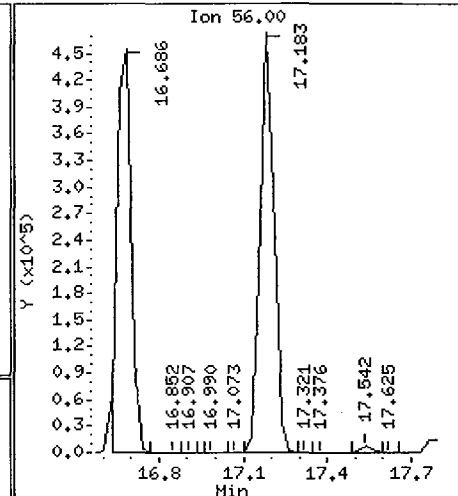
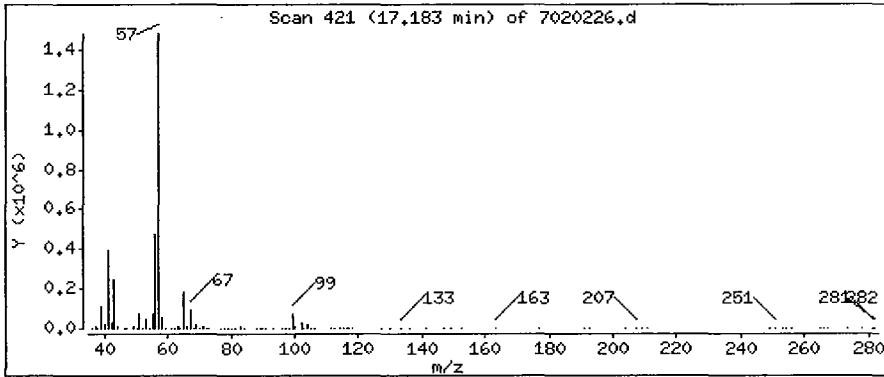
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

143 Isooctane

Concentration: 9.296 PPBV



0653

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

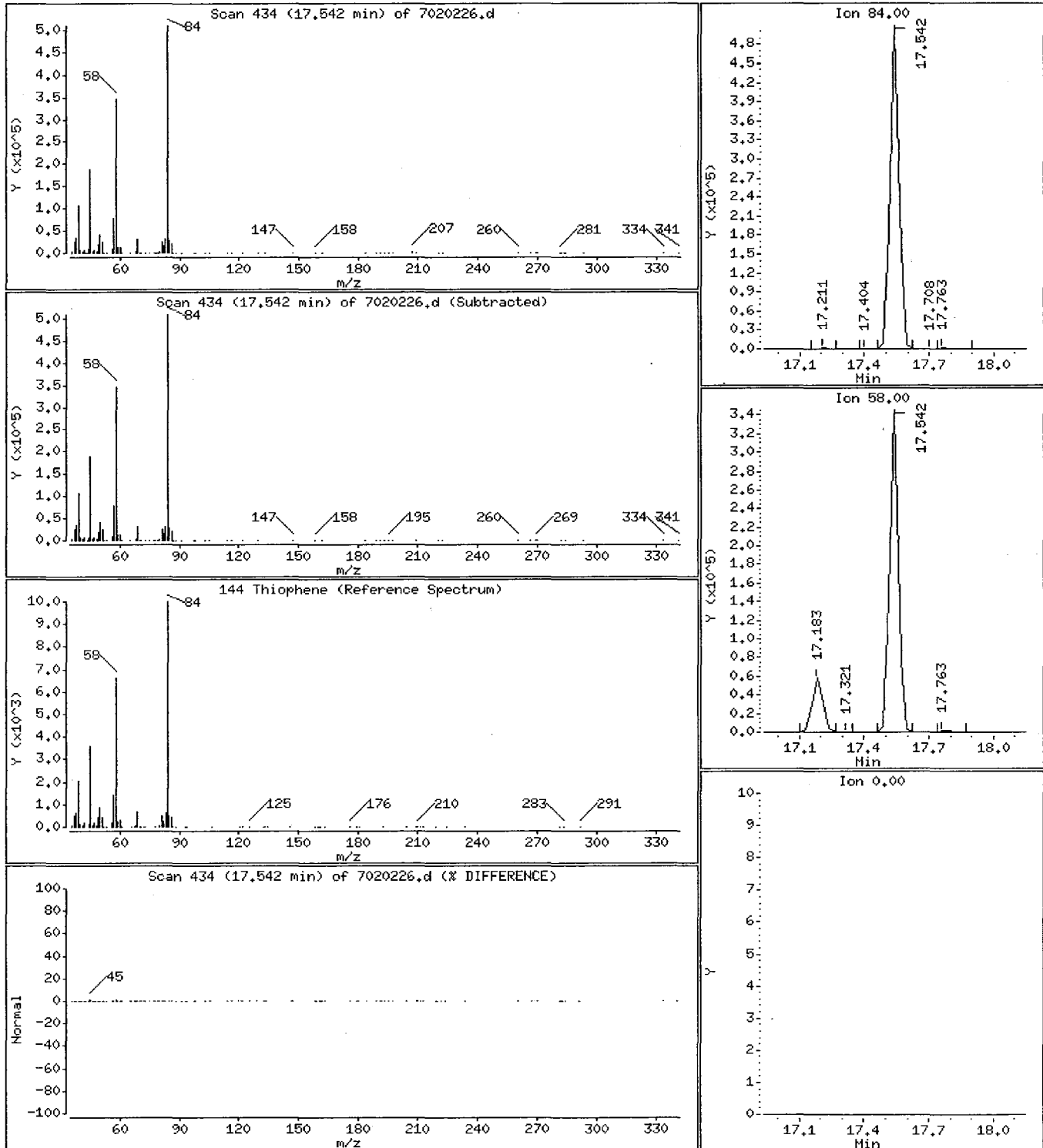
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

144 Thiophene

Concentration: 7.069 PPBV



0654

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

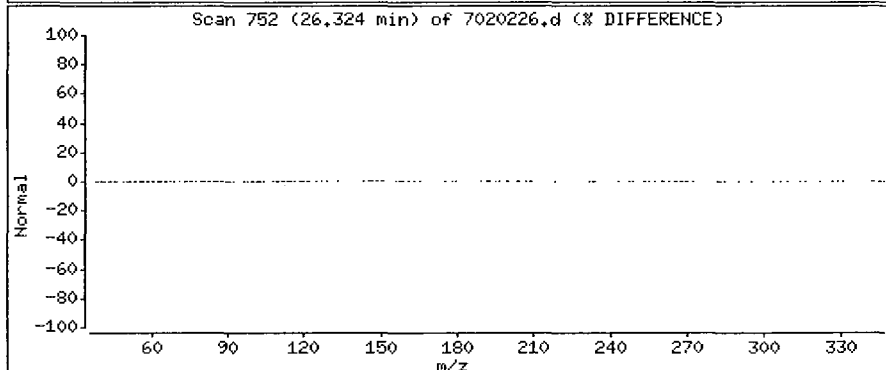
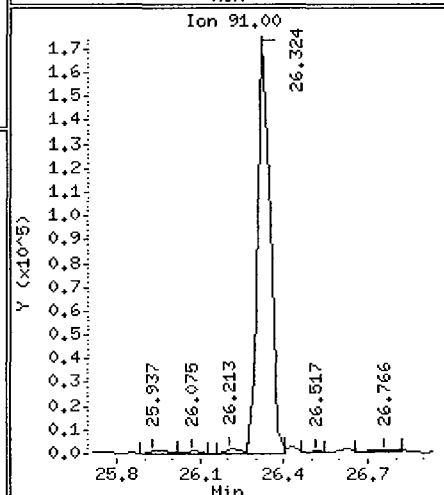
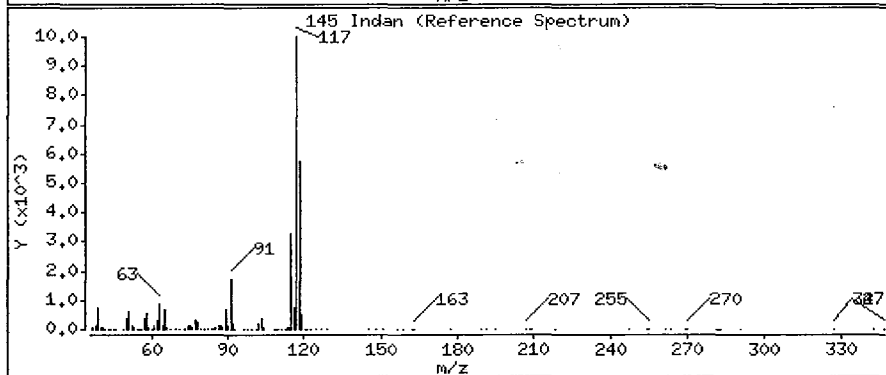
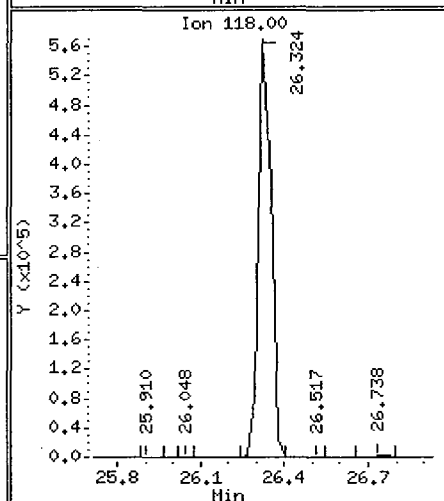
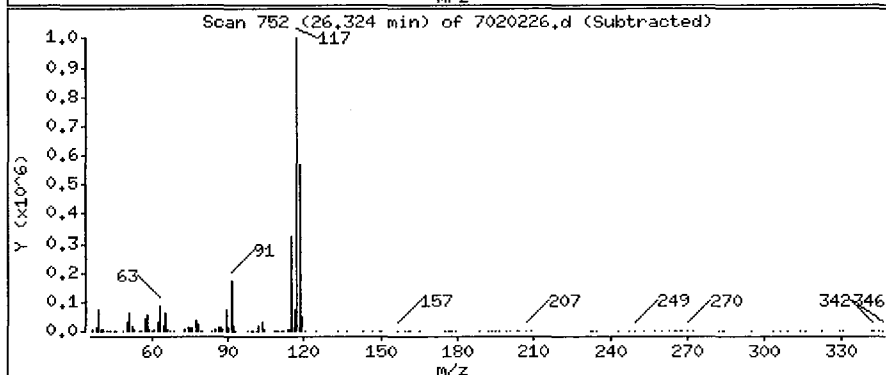
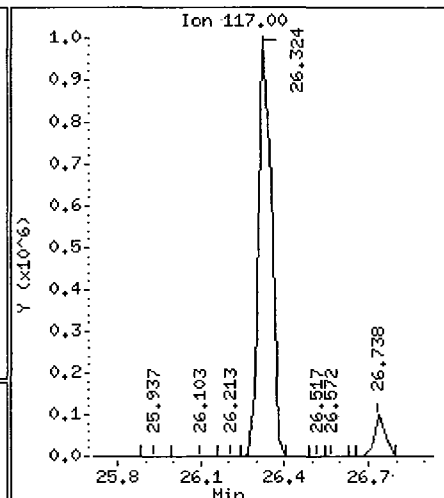
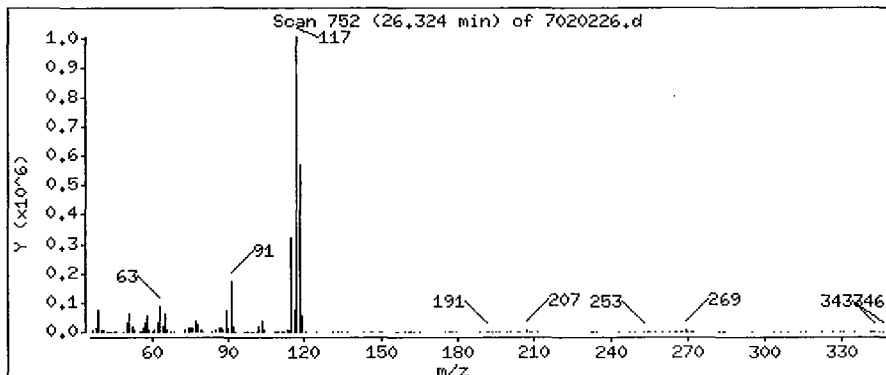
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

145 Indan

Concentration: 8,690 PPBV



0655

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

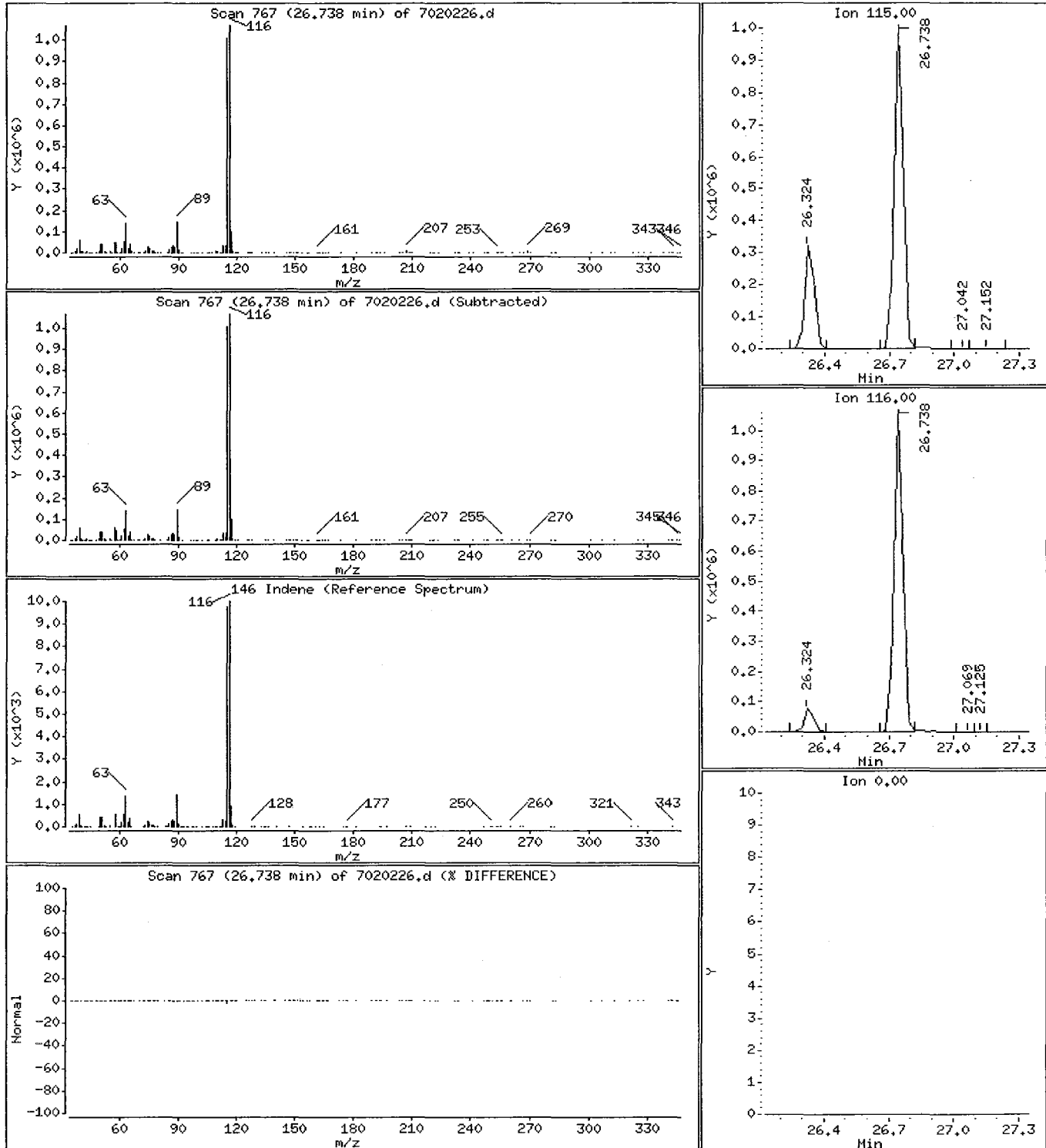
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

146 Indene

Concentration: 9.487 PPBV



0656

Data File: /chem/msd7.i/7-02feba.b/7020226.d

Page 9

Date : 03-FEB-2005 15:00

Client ID: LCS

Instrument: msd7.i

Sample Info: #1248-104[200/500ng]

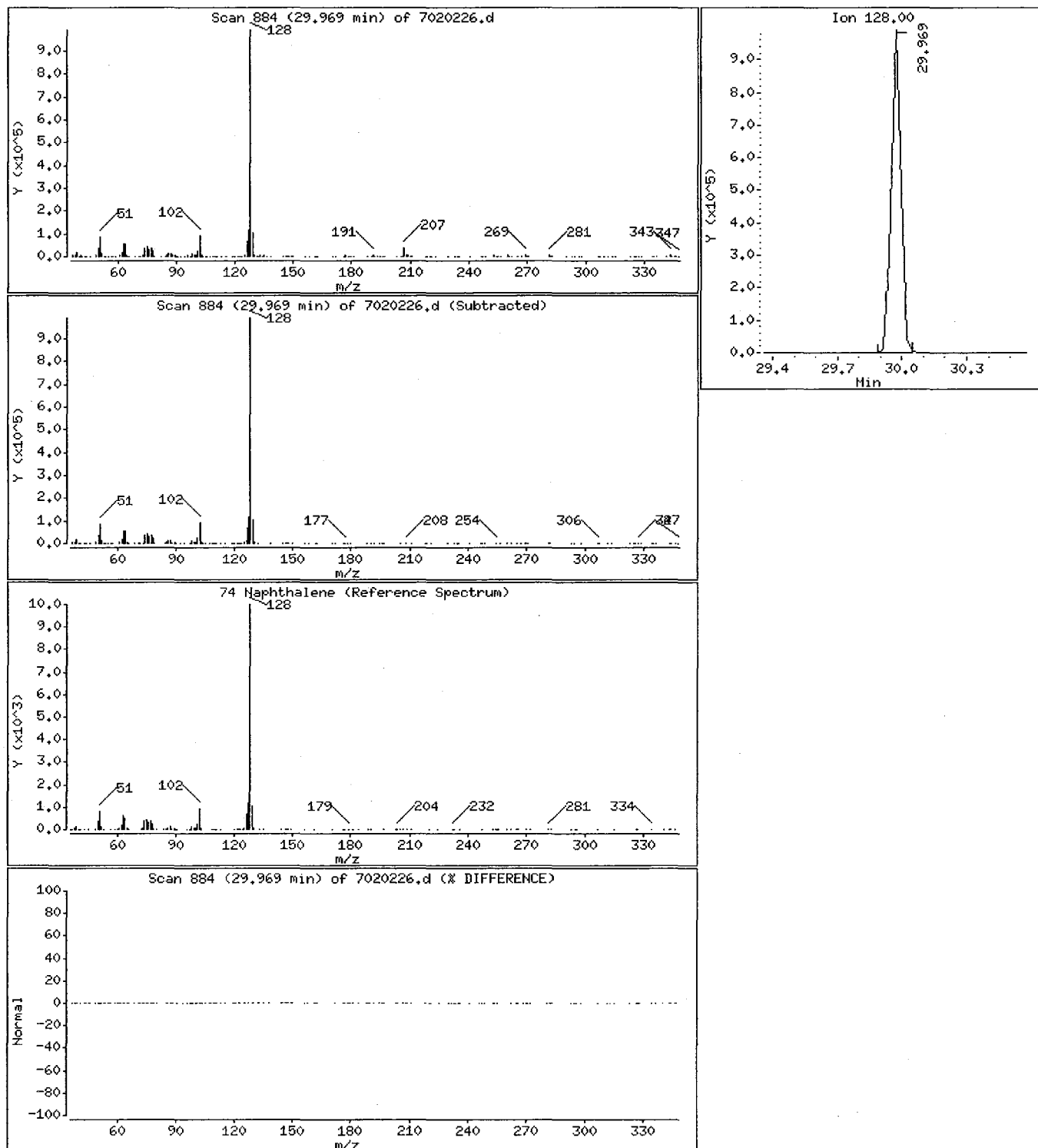
Operator: NK

Column phase: RTX-624

Column diameter: 0.32

74 Naphthalene

Concentration: 4,170 PPBV



0657

SCOEPA00032329

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-01feb.b/7020104.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 01-FEB-2005 12:56
Operator : nk Inst ID: msd7.i
Smp Info : #1243-148[50ppbv]
Misc Info : 5.0ppbv[100ml]
Comment :
Method : /chem/msd7.i/7-01feb.b/t141J27a.m
Meth Date : 07-Feb-2005 14:59 nkhan Quant Type: ISTD
Cal Date : 03-FEB-2005 12:33 Cal File: 7020224.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-1.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (PPBV)	FINAL (PPBV)
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	572443	10.0000	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2697110	10.0000	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1935273	10.0000	
\$ 34 1,2-Dichloroethane-d4	65	17.211	17.211	(1.054)	1133469	9.61376	9.614
\$ 45 Toluene-d8	98	19.917	19.917	(1.120)	2396710	10.4158	10.416
\$ 63 Bromofluorobenzene	174	23.949	23.949	(1.082)	981418	9.81674	9.817
1 Dichlorodifluoromethane/Fr12	85	5.944	5.971	(0.364)	2252393	4.85423	4.854
3 Freon 114	135	7.048	7.076	(0.432)	1302796	5.05555	5.056
4 Chloromethane	50	7.352	7.352	(0.450)	673574	5.03523	5.035
6 Vinyl Chloride	62	8.070	8.070	(0.494)	769603	5.25317	5.253
7 1,3-Butadiene	54	8.291	8.291	(0.508)	499389	4.09489	4.095
8 Bromomethane	94	9.727	9.727	(0.596)	512107	4.34761	4.348
9 Chloroethane	64	10.196	10.224	(0.624)	320173	4.58880	4.589
10 Trichlorofluoromethane/Fr11	101	11.052	11.053	(0.677)	2007208	4.97478	4.975
12 Ethanol	45	12.047	12.047	(0.738)	267362	8.74122	8.741(R)
15 Freon 113	151	12.544	12.544	(0.768)	852512	5.11180	5.112
14 1,1-Dichloroethene	98	12.516	12.516	(0.767)	438288	5.34110	5.341
16 Acetone	43	12.847	12.820	(0.787)	1271778	4.21620	4.216
17 Carbon Disulfide	76	12.903	12.903	(0.790)	1685519	4.49899	4.499
18 2-Propanol	45	13.234	13.234	(0.811)	1177691	4.13066	4.131
20 Methylene Chloride	84	13.731	13.731	(0.841)	570140	4.77621	4.776

0658

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(PPBV)	(PPBV)
=====	=====	==	=====	=====	=====	=====	=====	
21 MTBE	73	14.145	14.145	(0.866)	1695074	5.11193	5.112	
22 trans-1,2-Dichloroethene	98	14.173	14.173	(0.868)	409887	4.62849	4.628	
24 Hexane	57	14.559	14.560	(0.892)	1113249	4.92169	4.922	
25 1,1-Dichloroethane	63	15.001	15.001	(0.919)	1227644	5.02219	5.022	
26 Vinyl Acetate	43	15.057	15.057	(0.922)	743172	11.1319	11.132 (R)	
27 cis-1,2-Dichloroethene	98	15.940	15.940	(0.976)	438356	5.29524	5.295	
28 2-Butanone	72	15.968	15.968	(0.978)	306187	4.89840	4.898	
23 Tetrahydrofuran	42	16.327	16.327	(1.000)	839906	4.84219	4.842	
30 Chloroform	83	16.410	16.410	(1.005)	1436625	5.24637	5.246	
31 Cyclohexane	84	16.658	16.658	(1.020)	669902	5.35630	5.356	
32 1,1,1-Trichloroethane	97	16.658	16.658	(1.020)	1283318	5.71989	5.720	
33 Carbon Tetrachloride	119	16.879	16.879	(1.034)	862945	4.19799	4.198	
35 Benzene	78	17.211	17.211	(0.967)	1914124	4.89011	4.890	
36 1,2-Dichloroethane	62	17.321	17.321	(0.974)	1049181	5.51215	5.512	
37 Heptane	43	17.431	17.432	(0.980)	1120304	4.90188	4.902	
39 Trichloroethene	130	18.149	18.150	(1.020)	791683	5.75875	5.759	
40 1,2-Dichloropropane	63	18.536	18.536	(1.042)	602421	5.34515	5.345	
41 1,4-Dioxane	88	18.647	18.647	(1.048)	419258	5.23737	5.237	
42 Bromodichloromethane	83	18.895	18.895	(1.062)	1195789	4.68994	4.690	
43 cis-1,3-Dichloropropene	75	19.558	19.558	(1.099)	983746	5.74962	5.750	
44 4-Methyl-2-pentanone	43	19.724	19.724	(1.109)	1238339	4.89786	4.898	
46 Toluene	91	20.000	20.000	(1.124)	2218655	4.94751	4.948	
47 trans-1,3-Dichloropropene	75	20.359	20.359	(0.920)	892713	5.45426	5.454	
48 1,1,2-Trichloroethane	97	20.662	20.663	(0.934)	704810	5.49349	5.493	
49 Tetrachloroethene	166	20.801	20.801	(0.940)	896513	5.37978	5.380	
50 2-Hexanone	58	20.939	20.939	(0.946)	611129	4.83359	4.834	
51 Dibromochloromethane	129	21.242	21.243	(0.960)	984838	5.45596	5.456	
53 1,2-Dibromoethane	107	21.463	21.463	(0.970)	994465	5.62886	5.629	
55 Chlorobenzene	112	22.181	22.181	(1.002)	1459918	5.27733	5.277	
56 Ethyl Benzene	106	22.264	22.264	(1.006)	863458	5.43418	5.434	
57 m,p-Xylene	106	22.430	22.430	(1.014)	2023655	10.4132	10.413	
58 o-Xylene	106	23.065	23.065	(1.042)	928259	5.86528	5.865	
59 Styrene	104	23.093	23.093	(1.044)	1119570	4.56996	4.570	
60 Bromoform	173	23.479	23.479	(1.061)	602004	4.61539	4.615	
64 1,1,2,2-Tetrachloroethane	83	24.170	24.170	(1.092)	1094897	5.81093	5.811	
66 4-Ethyltoluene	105	24.473	24.474	(1.106)	2520686	5.97773	5.978	
67 1,3,5-Trimethylbenzene	105	24.556	24.556	(1.110)	2198083	5.87540	5.875	
69 1,2,4-Trimethylbenzene	105	25.219	25.219	(1.140)	1974288	5.51635	5.516	
70 1,3-Dichlorobenzene	146	25.771	25.771	(1.165)	1430466	5.57531	5.575	
71 1,4-Dichlorobenzene	146	25.937	25.937	(1.172)	1456841	5.45169	5.452	
72 alpha-Chlorotoluene	91	26.158	26.158	(1.182)	2198540	7.28832	7.288 (R)	
73 1,2-Dichlorobenzene	146	26.600	26.600	(1.202)	1286501	5.63591	5.636	
75 1,2,4-Trichlorobenzene	180	29.472	29.472	(1.332)	1307606	6.77769	6.778 (R)	
76 Hexachlorobutadiene	225	29.665	29.665	(1.341)	768099	5.77683	5.777	
62 Cumene	105	23.617	23.617	(1.067)	2434292	6.33589	6.336	
65 Propylbenzene	91	24.280	24.280	(1.097)	2206940	4.17431	4.174	

0659

Data File: /chem/msd7.i/7-01feb.b/7020104.d
Report Date: 07-Feb-2005 15:00

Page 3

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

0660

SCOEPA00032332

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 01-FEB-2005
Lab File ID: 7020104.d	Calibration Time: 10:50
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: nk	
Method File: /chem/msd7.i/7-01feb.b/t141J27a.m	
Misc Info: 5.0ppbv[100ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	547376	328426	766326	572443	4.58
38 1,4-Difluorobenze	2587160	1552296	3622024	2697110	4.25
54 Chlorobenzene-d5	1908989	1145393	2672585	1935273	1.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0661

SCOEPAA00032333

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-01feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: nk
Data Type: MS DATA	SampleType: LCS
SpikeList File: AT.spk	Quant Type: ISTD
Sublist File: AT-1.sub	
Method File: /chem/msd7.i/7-01feb.b/t141J27a.m	
Misc Info: 5.0ppbv[100ml]	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	0.000	* 60-140	
1 Dichlorodifluorome	5.000	4.854	97.08	70-130
3 Freon 114	5.000	5.056	101.11	70-130
4 Chloromethane	5.000	5.035	100.70	70-130
6 Vinyl Chloride	5.000	5.253	105.06	70-130
7 1,3-Butadiene	5.000	4.095	81.90	60-140
8 Bromomethane	5.000	4.348	86.95	70-130
9 Chloroethane	5.000	4.589	91.78	70-130
10 Trichlorofluoromet	5.000	4.975	99.50	70-130
12 Ethanol	5.000	8.741	174.82*	60-140
15 Freon 113	5.000	5.112	102.24	70-130
14 1,1-Dichloroethene	5.000	5.341	106.82	70-130
16 Acetone	5.000	4.216	84.32	60-140
17 Carbon Disulfide	5.000	4.499	89.98	60-140
18 2-Propanol	5.000	4.131	82.61	60-140
20 Methylene Chloride	5.000	4.776	95.52	70-130
21 MTBE	5.000	5.112	102.24	60-140
22 trans-1,2-Dichloro	5.000	4.628	92.57	60-140
24 Hexane	5.000	4.922	98.43	60-140
25 1,1-Dichloroethane	5.000	5.022	100.44	70-130
26 Vinyl Acetate	5.000	11.132	222.64*	60-140
27 cis-1,2-Dichloroet	5.000	5.295	105.90	70-130
28 2-Butanone	5.000	4.898	97.97	60-140
23 Tetrahydrofuran	5.000	4.842	96.84	60-140
30 Chloroform	5.000	5.246	104.93	70-130
31 Cyclohexane	5.000	5.356	107.13	60-140
32 1,1,1-Trichloroeth	5.000	5.720	114.40	70-130
33 Carbon Tetrachlori	5.000	4.198	83.96	70-130
35 Benzene	5.000	4.890	97.80	70-130
36 1,2-Dichloroethane	5.000	5.512	110.24	70-130
37 Heptane	5.000	4.902	98.04	60-140
39 Trichloroethene	5.000	5.759	115.17	70-130
40 1,2-Dichloropropan	5.000	5.345	106.90	70-130
			0662	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
41 1,4-Dioxane	5.000	5.237	104.75	60-140
42 Bromodichlorometha	5.000	4.690	93.80	60-140
43 cis-1,3-Dichloropr	5.000	5.750	114.99	70-130
44 4-Methyl-2-pentano	5.000	4.898	97.96	60-140
46 Toluene	5.000	4.948	98.95	70-130
47 trans-1,3-Dichloro	5.000	5.454	109.09	70-130
48 1,1,2-Trichloroeth	5.000	5.493	109.87	70-130
49 Tetrachloroethene	5.000	5.380	107.60	70-130
50 2-Hexanone	5.000	4.834	96.67	60-140
51 Dibromochlorometha	5.000	5.456	109.12	60-140
53 1,2-Dibromoethane	5.000	5.629	112.58	70-130
55 Chlorobenzene	5.000	5.277	105.55	70-130
56 Ethyl Benzene	5.000	5.434	108.68	70-130
57 m,p-Xylene	10.000	10.413	104.13	70-130
58 o-Xylene	5.000	5.865	117.31	70-130
59 Styrene	5.000	4.570	91.40	70-130
60 Bromoform	5.000	4.615	92.31	60-140
64 1,1,2,2-Tetrachlor	5.000	5.811	116.22	70-130
66 4-Ethyltoluene	5.000	5.978	119.55	60-140
67 1,3,5-Trimethylben	5.000	5.875	117.51	70-130
69 1,2,4-Trimethylben	5.000	5.516	110.33	70-130
70 1,3-Dichlorobenzen	5.000	5.575	111.51	70-130
71 1,4-Dichlorobenzen	5.000	5.452	109.03	70-130
72 alpha-Chlorotoluen	5.000	7.288	145.77*	70-130
73 1,2-Dichlorobenzen	5.000	5.636	112.72	70-130
75 1,2,4-Trichloroben	5.000	6.778	135.55*	70-130
76 Hexachlorobutadien	5.000	5.777	115.54	70-130
62 Cumene	5.000	6.336	126.72	60-140
65 Propylbenzene	5.000	4.174	83.49	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	9.614	96.14	0-130
\$ 45 Toluene-d8	10.000	10.416	104.16	0-130
\$ 63 Bromofluorobenzene	10.000	9.817	98.17	0-130

0663

Date : 01-FEB-2005 12:56

Client ID: LCS

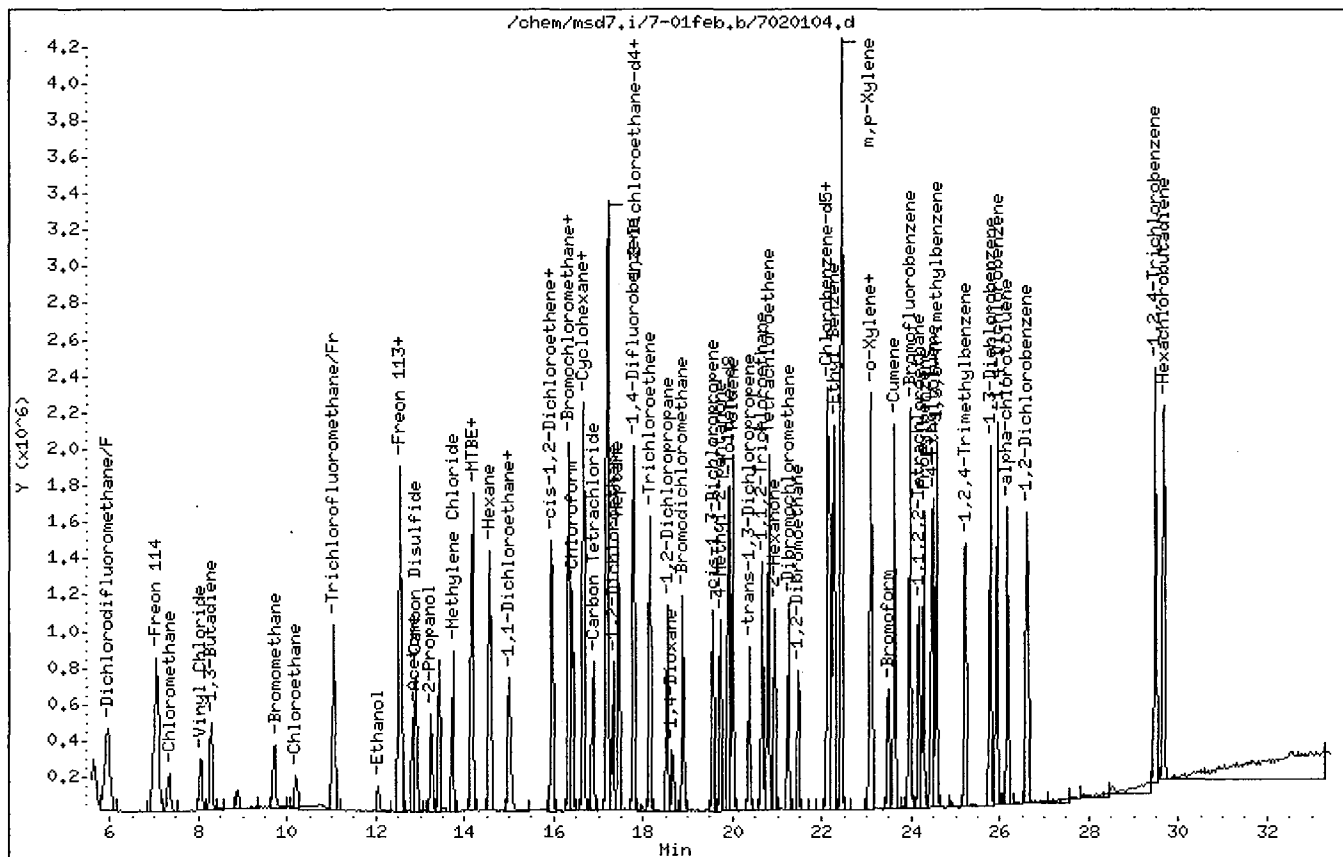
Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

Operator: nk

Column phase: RTX-624

Column diameter: 0.32



0664

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

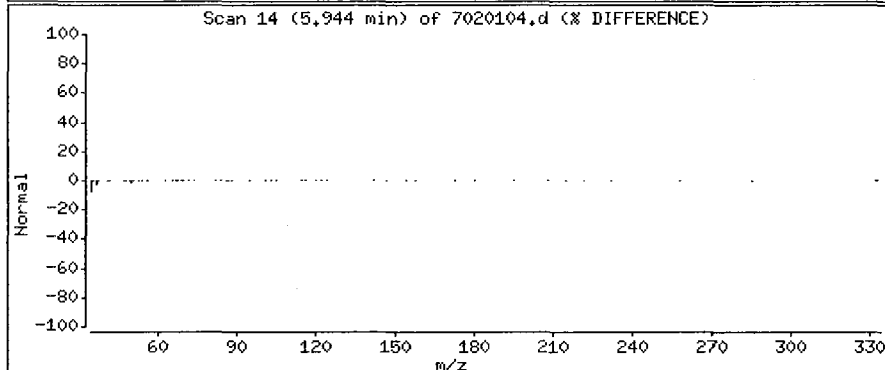
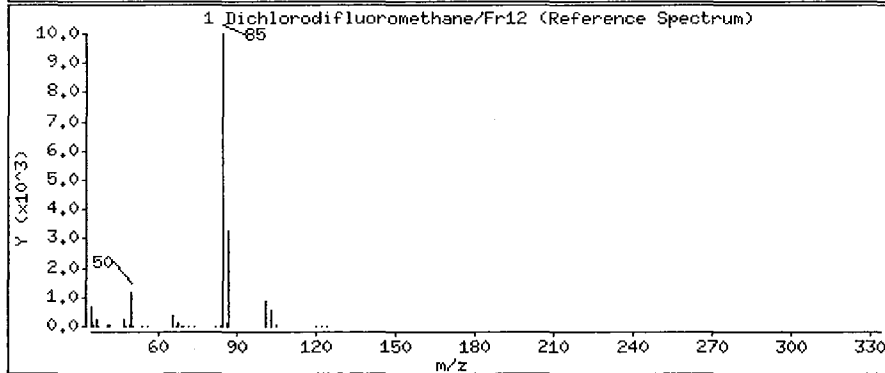
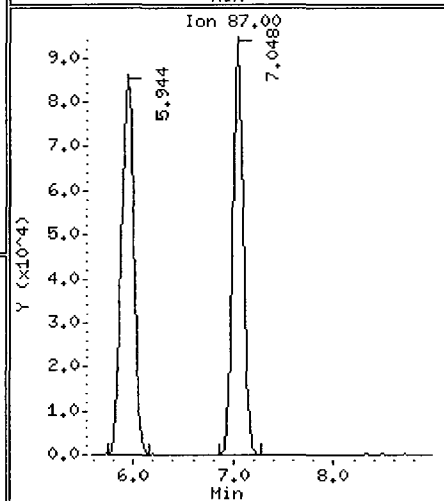
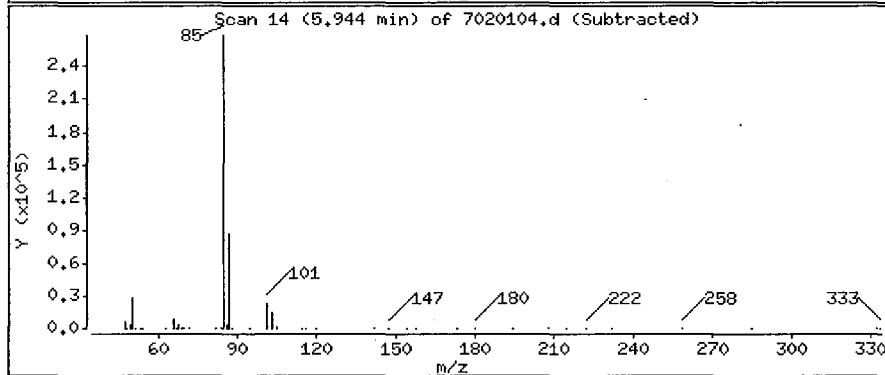
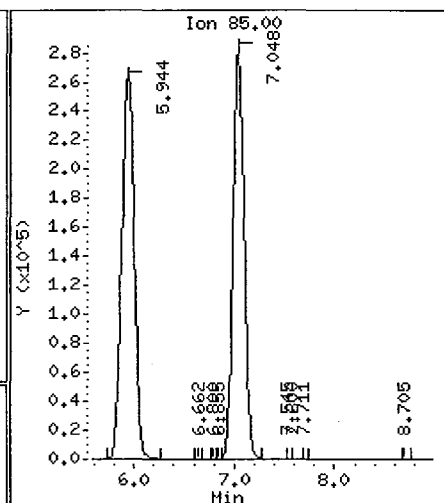
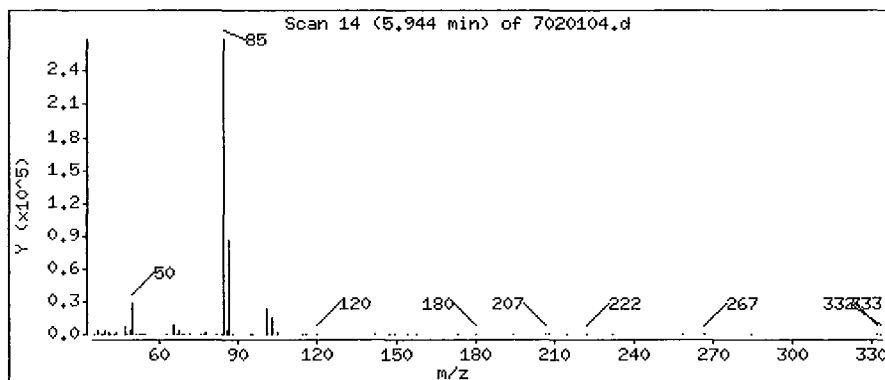
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 4,854 PPBV



0665

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

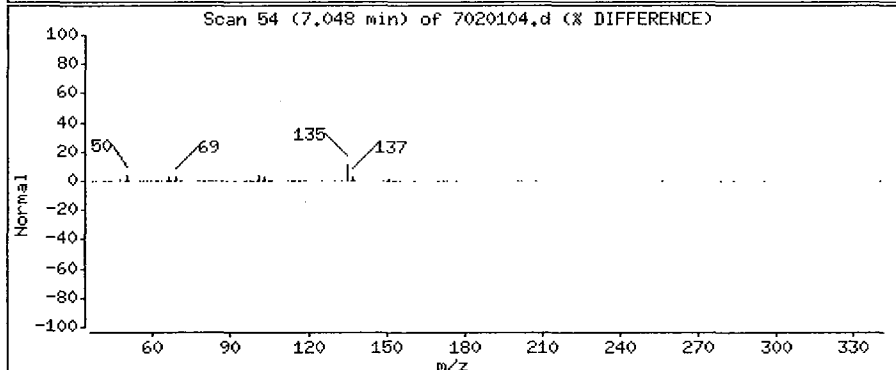
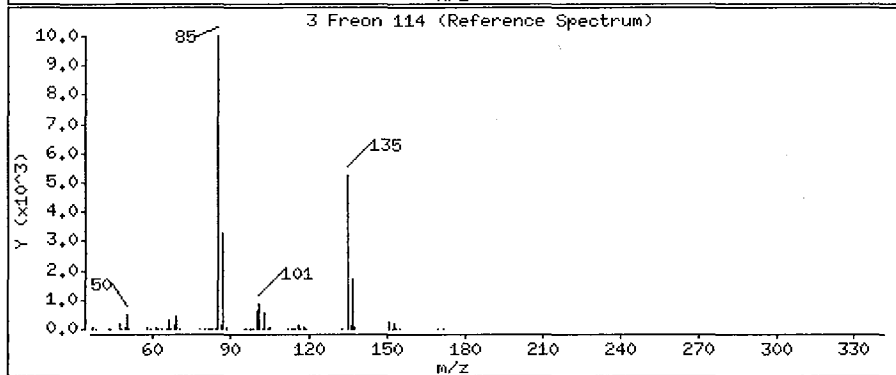
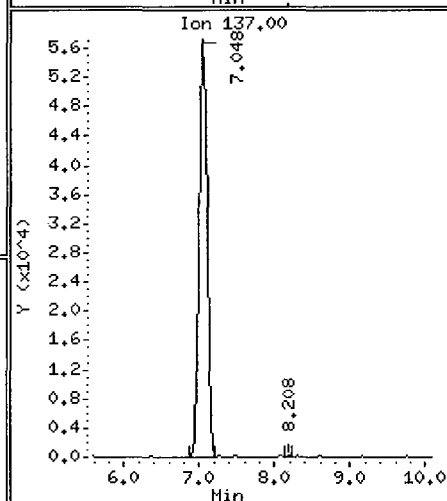
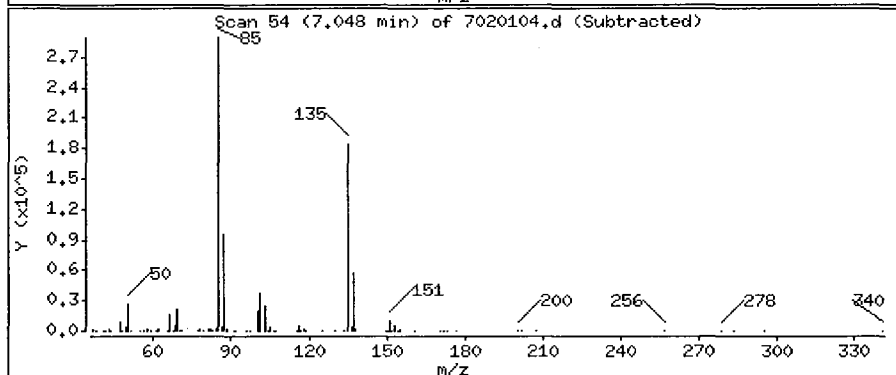
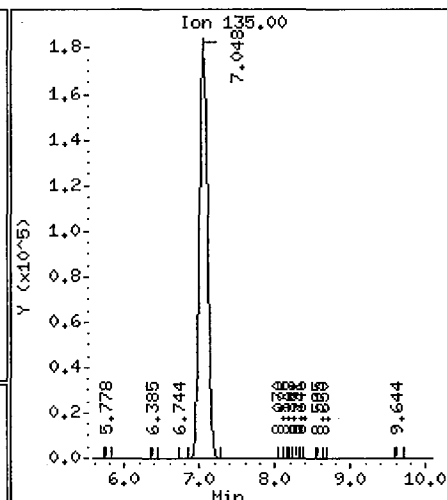
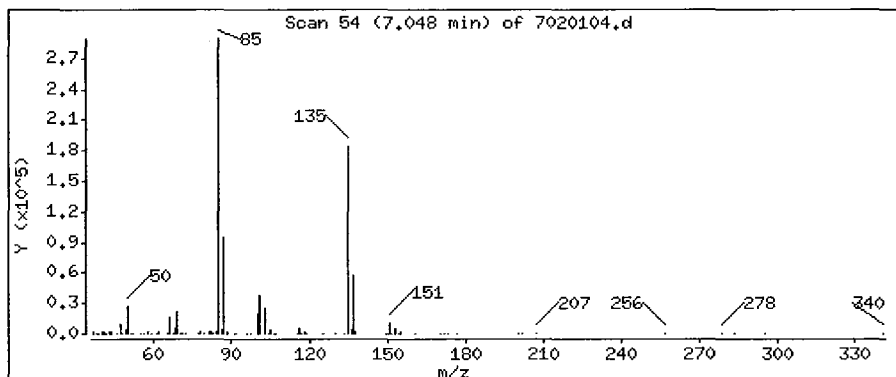
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

3 Freon 114

Concentration: 5.056 PPBV



0666

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

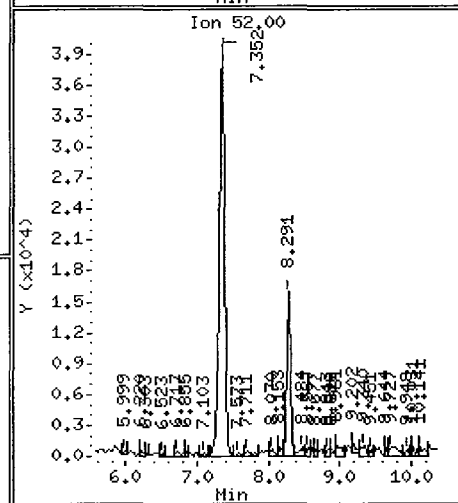
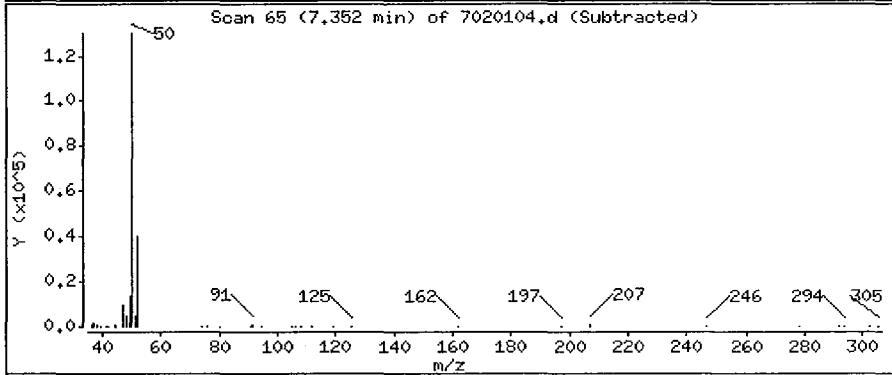
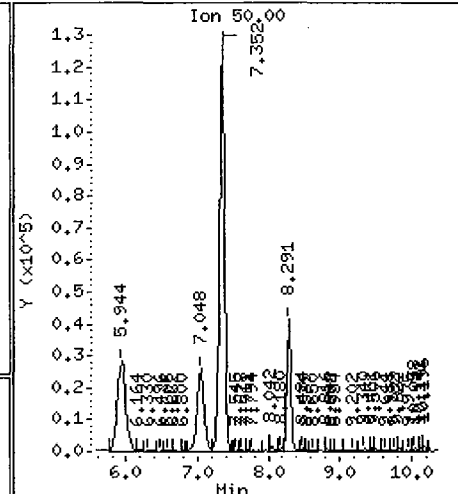
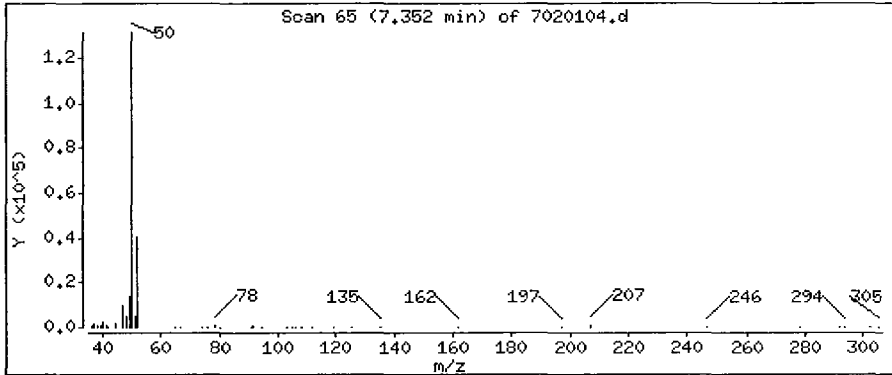
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 5.035 PPBV



Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

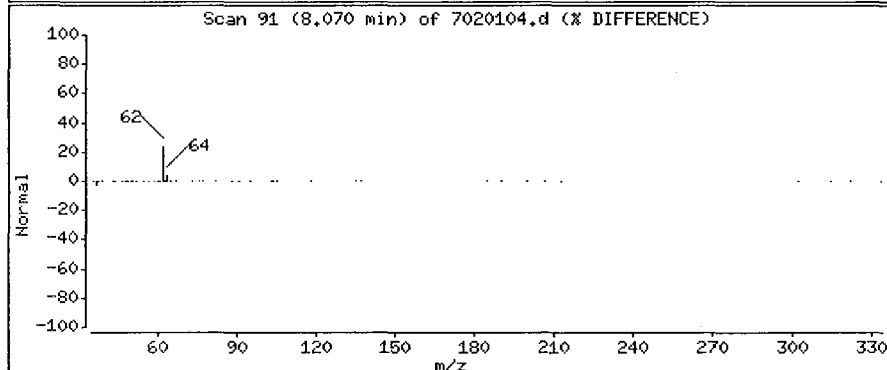
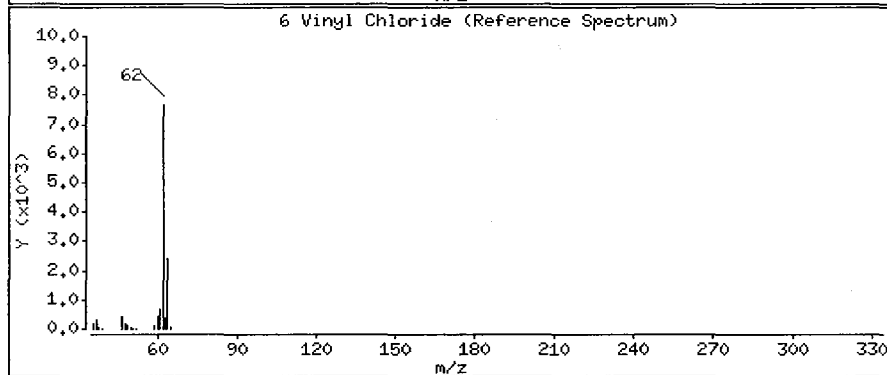
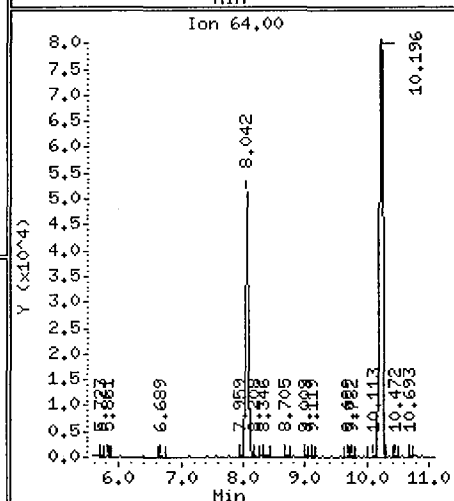
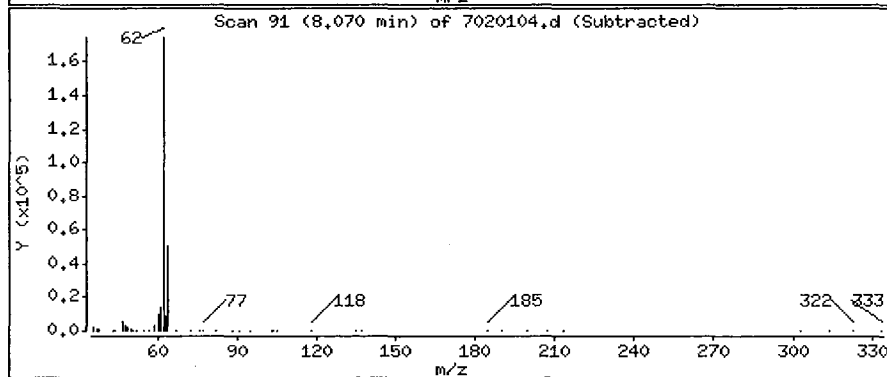
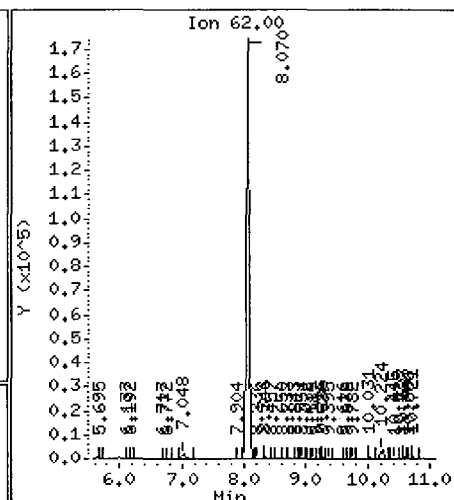
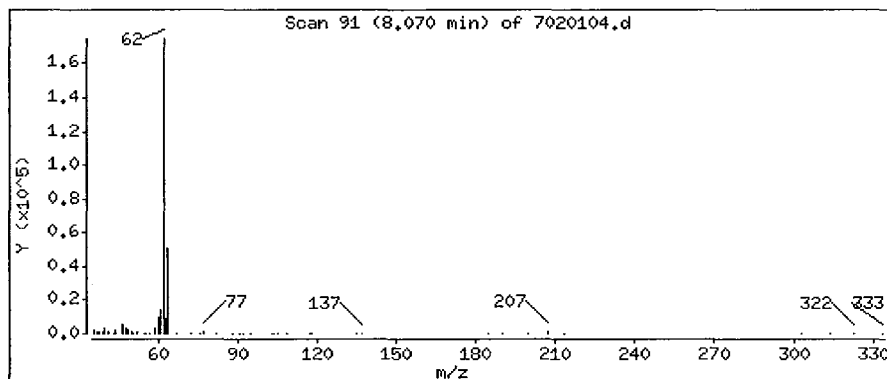
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

6 Vinyl Chloride

Concentration: 5.253 PPBV



0668

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

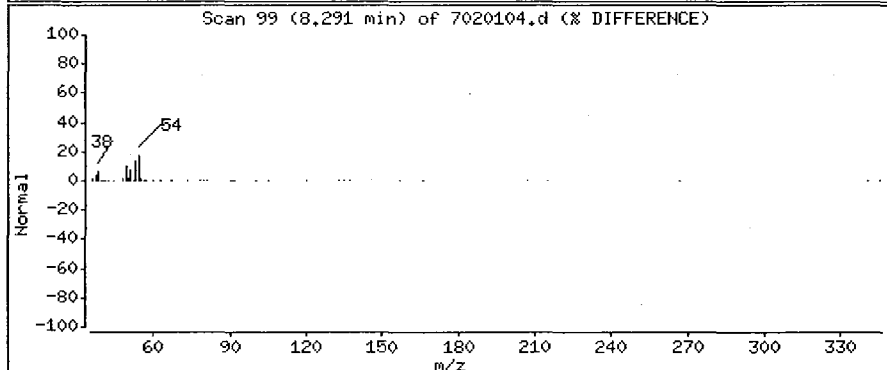
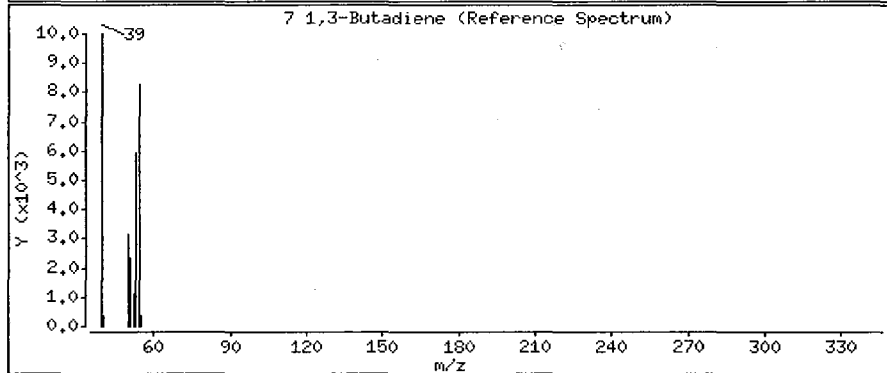
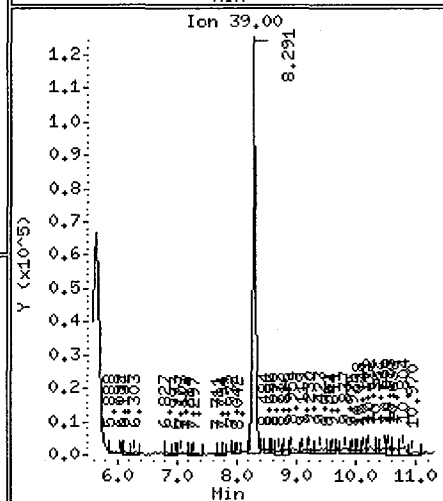
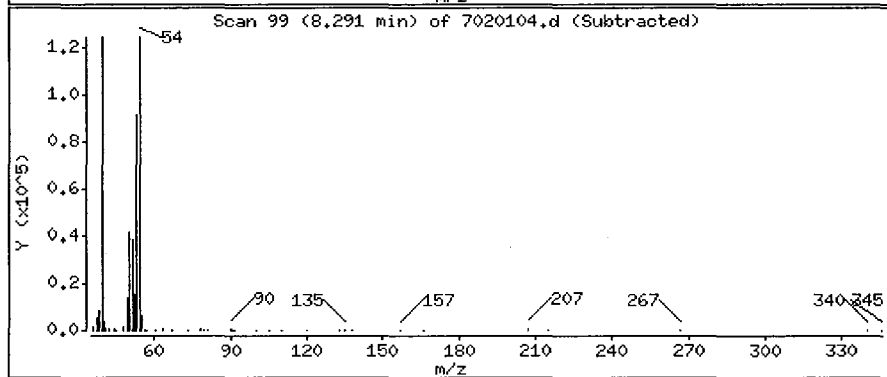
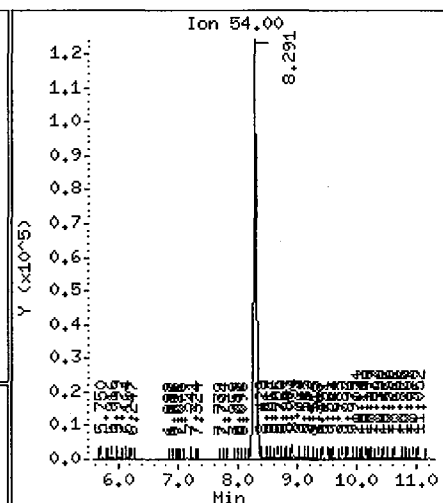
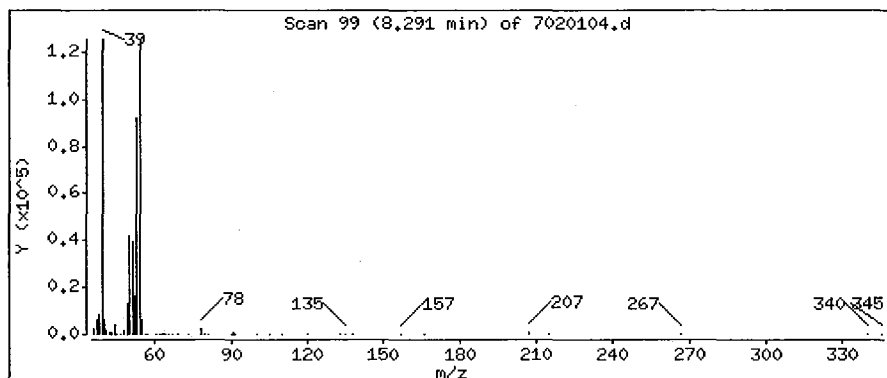
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 4.095 PPBV



0669

SCOEPAA00032341

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

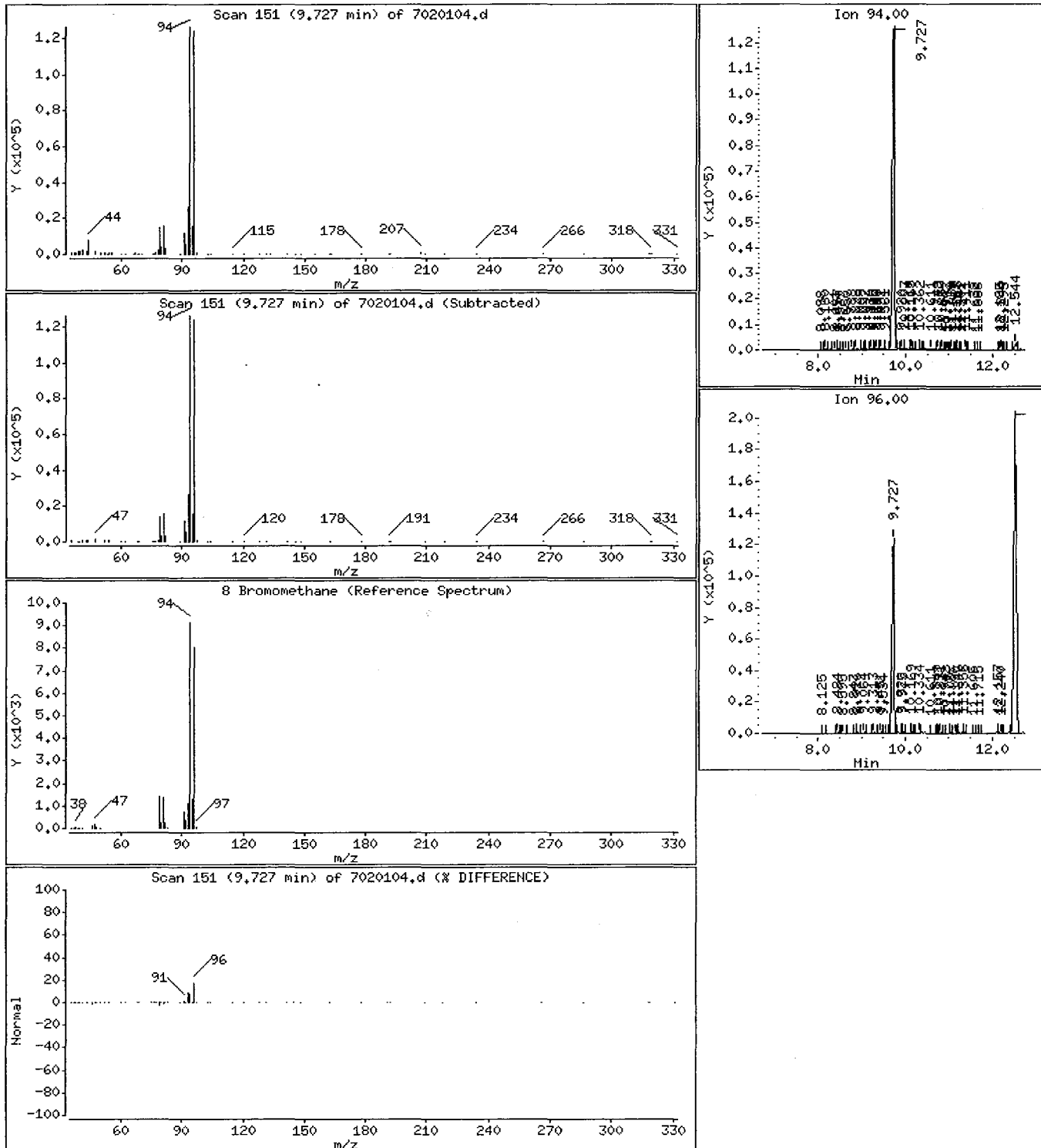
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

8 Bromomethane

Concentration: 4.348 PPBV



0670

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

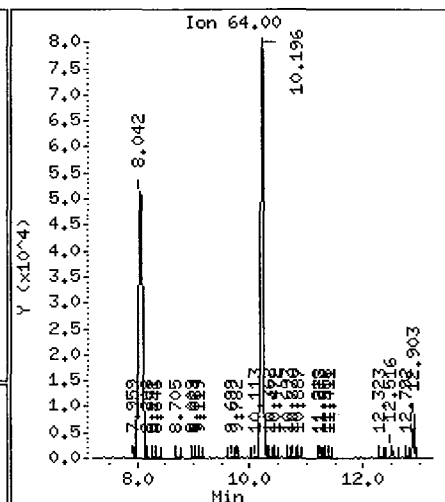
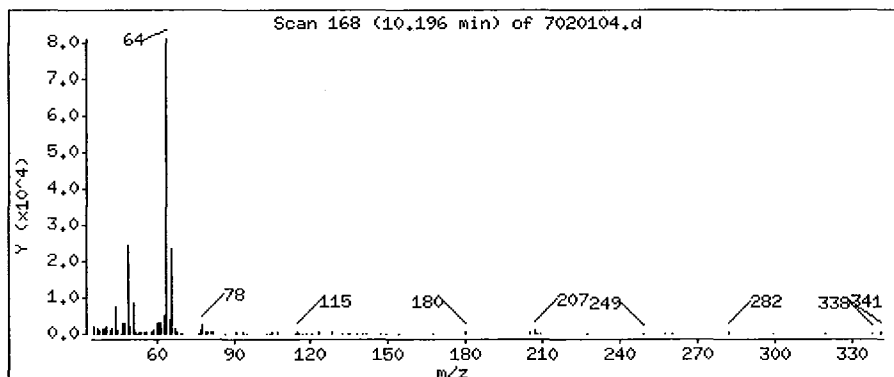
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

9 Chloroethane

Concentration: 4,589 PPBV



Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

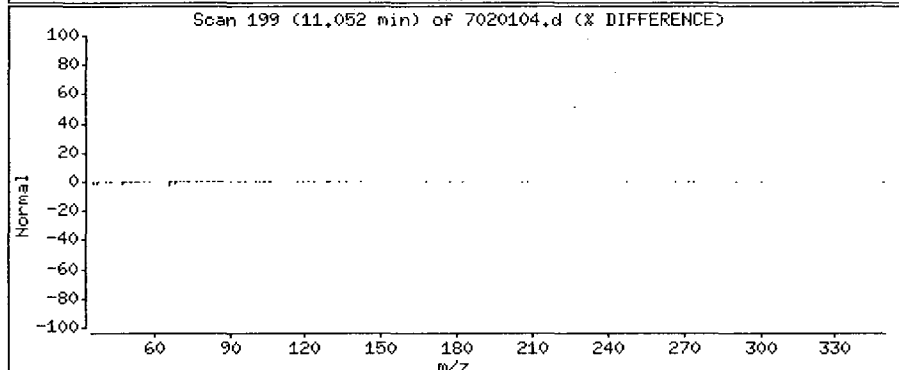
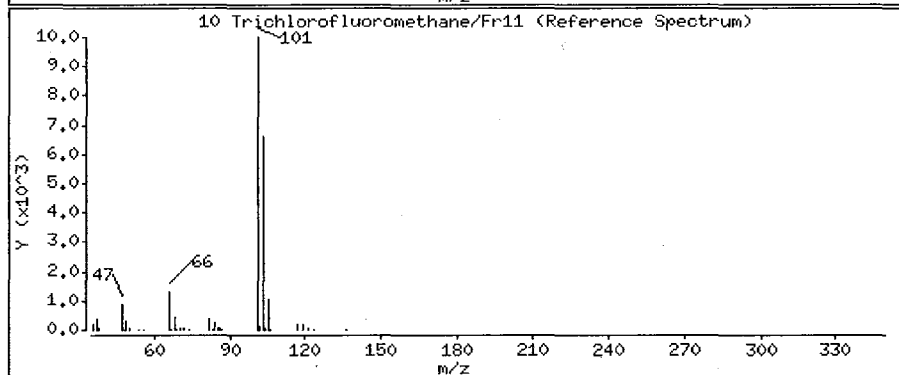
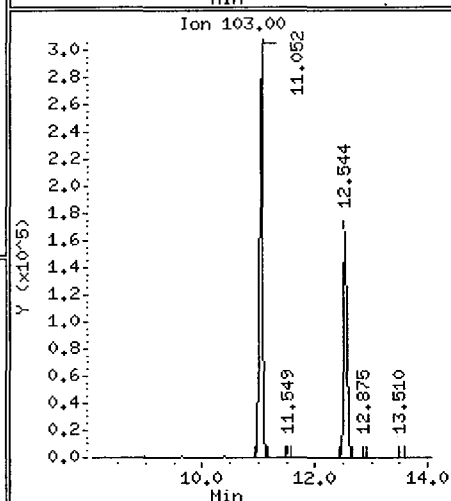
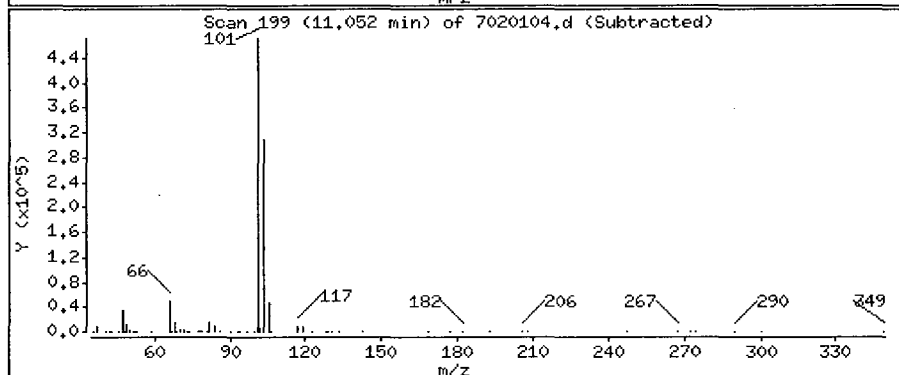
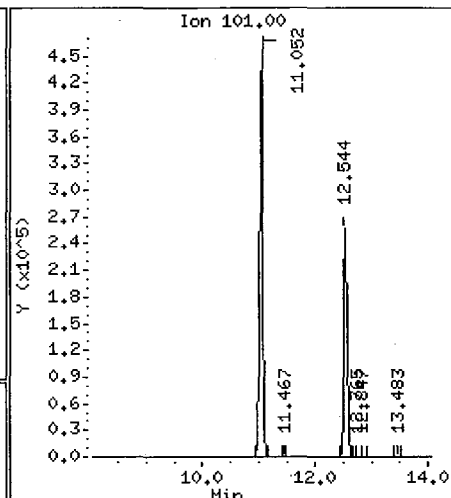
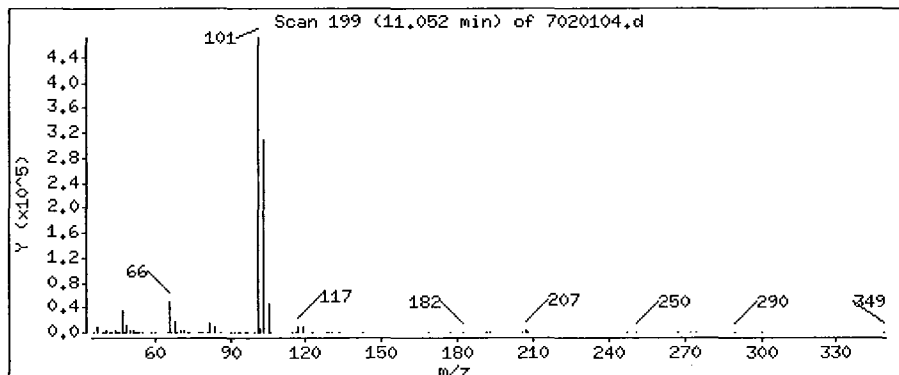
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 4.975 PPBV



0672

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

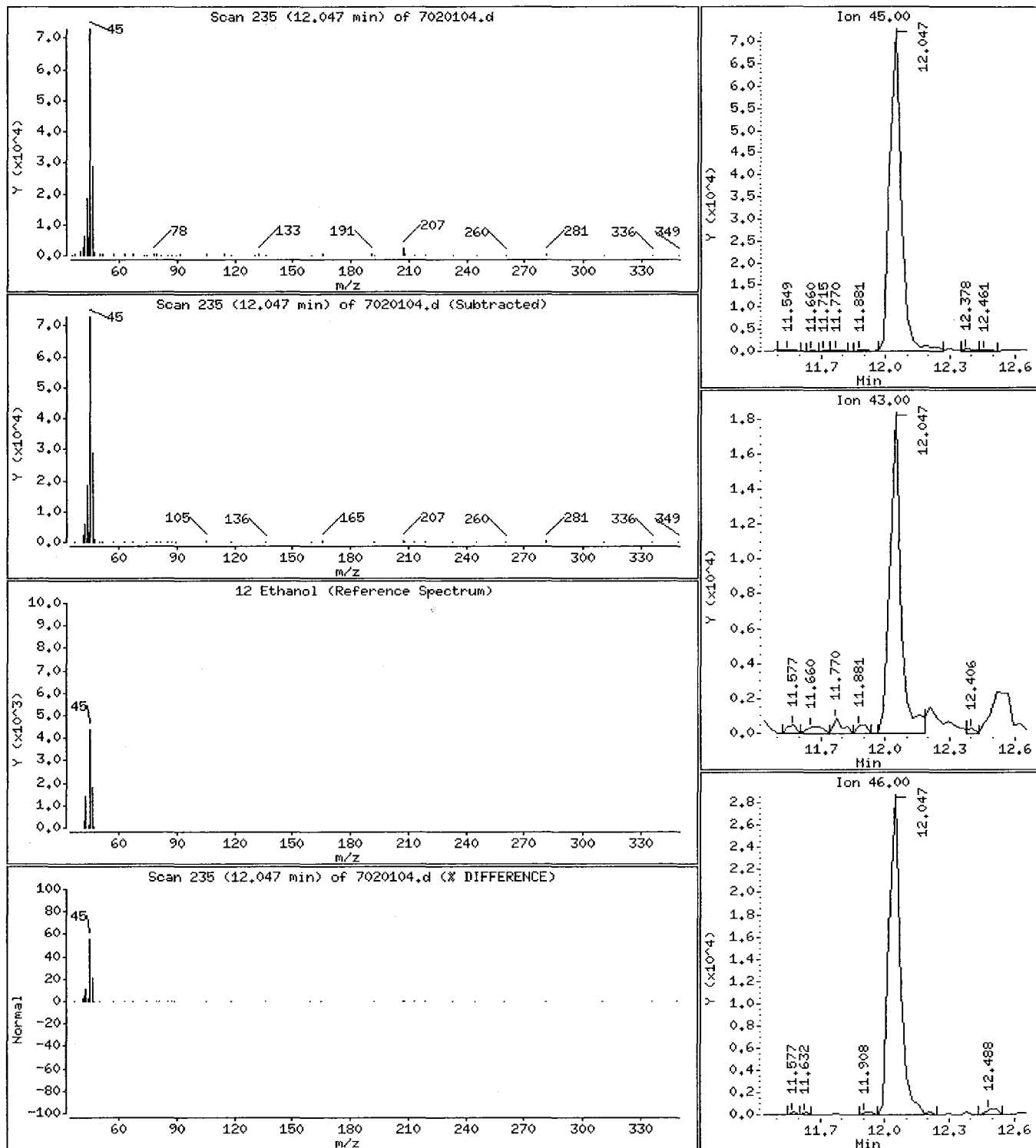
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 8.741 PPBV



0673

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

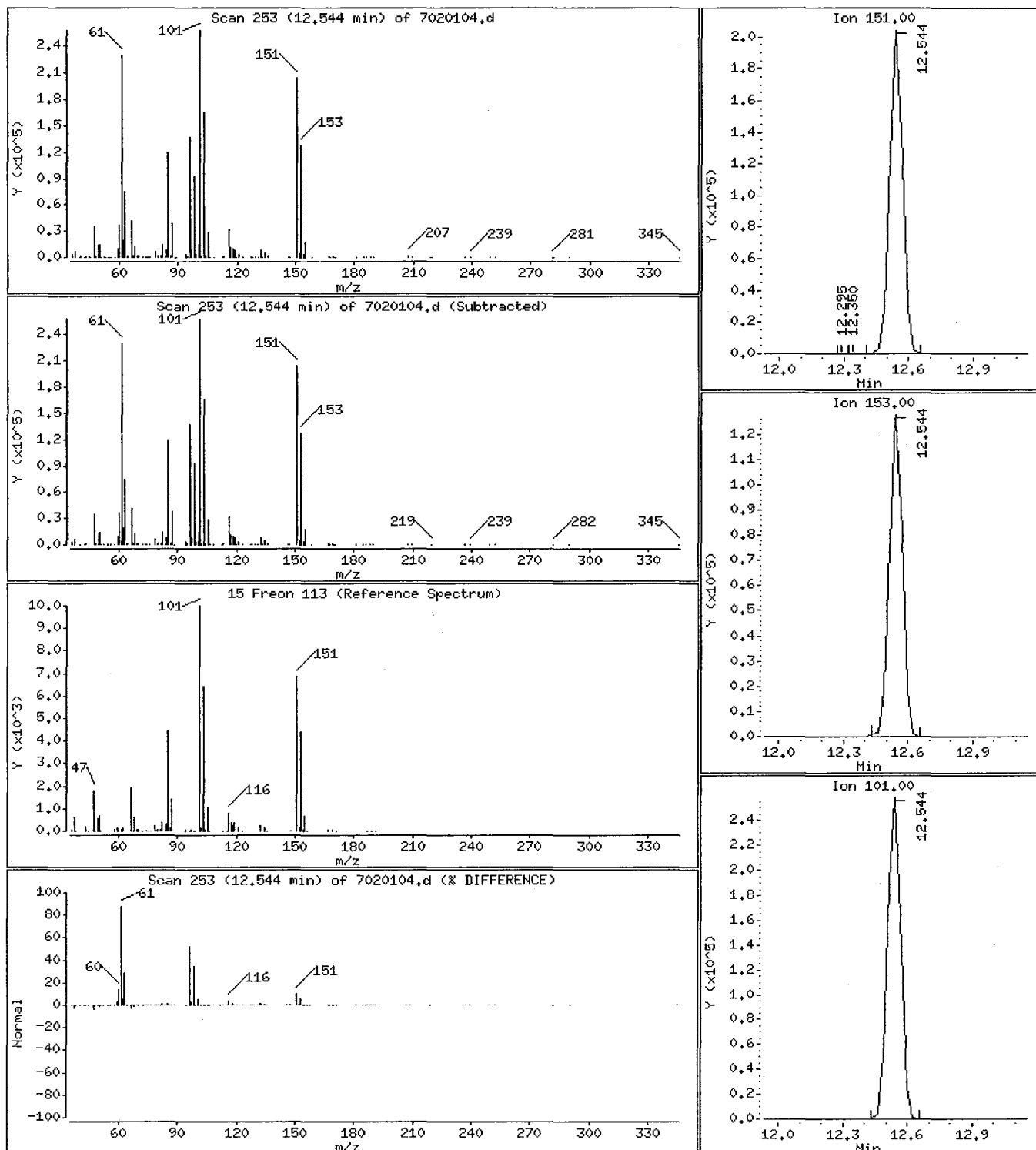
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

15 Freon 113

Concentration: 5.112 PPBV



0674

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

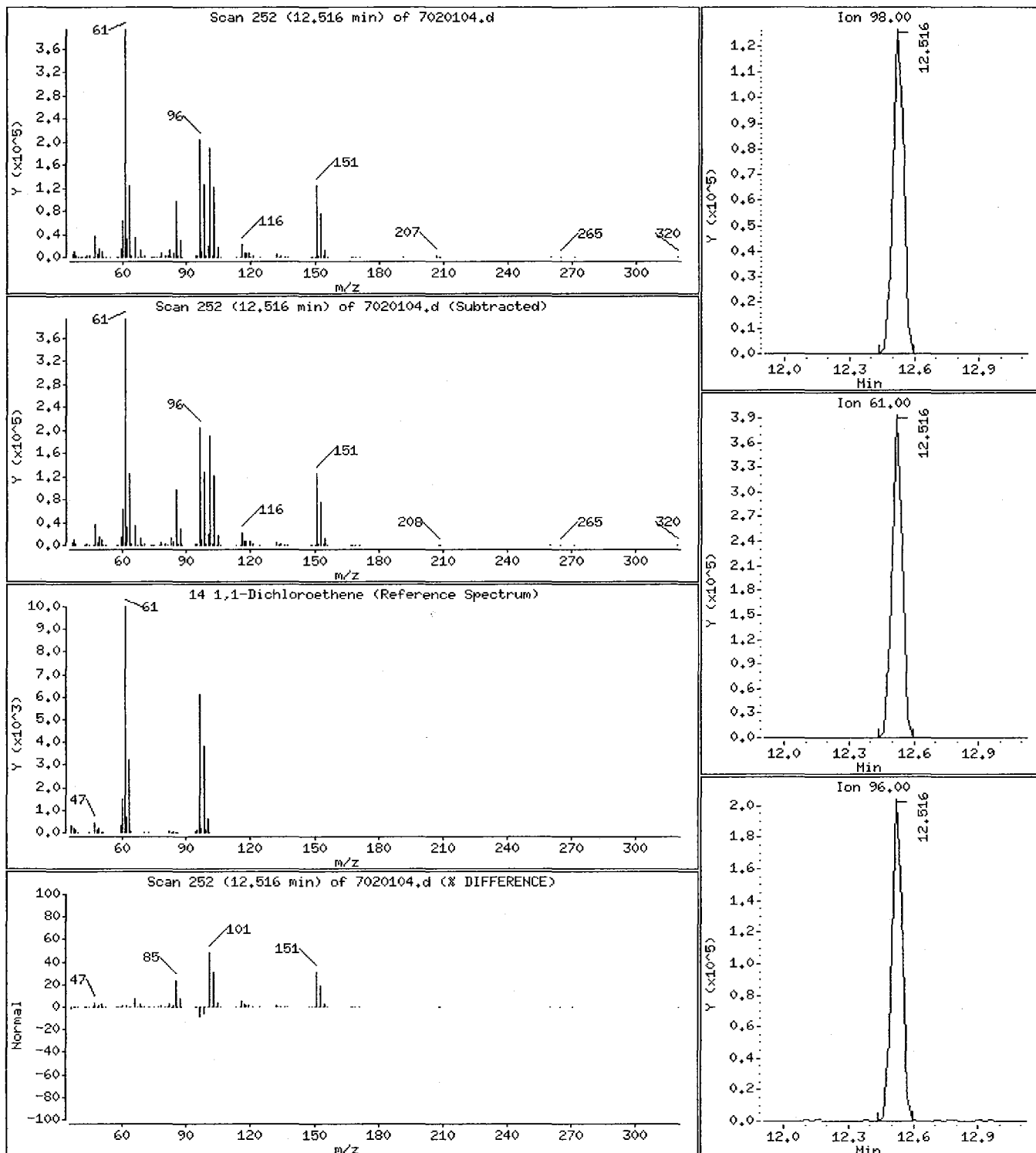
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

14 1,1-Dichloroethene

Concentration: 5.341 PPBV



0675

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

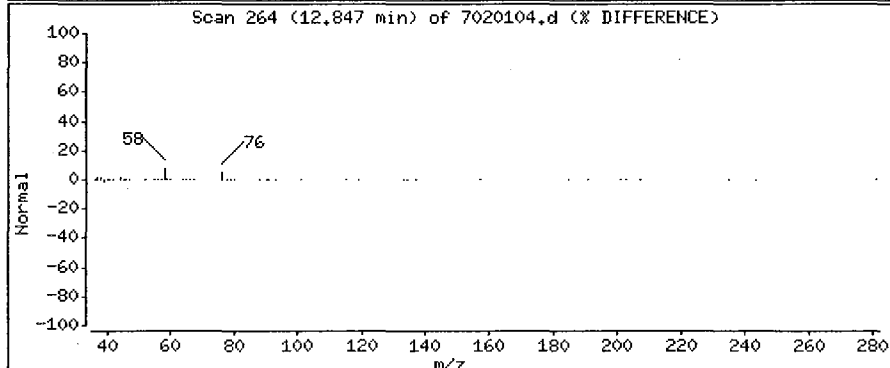
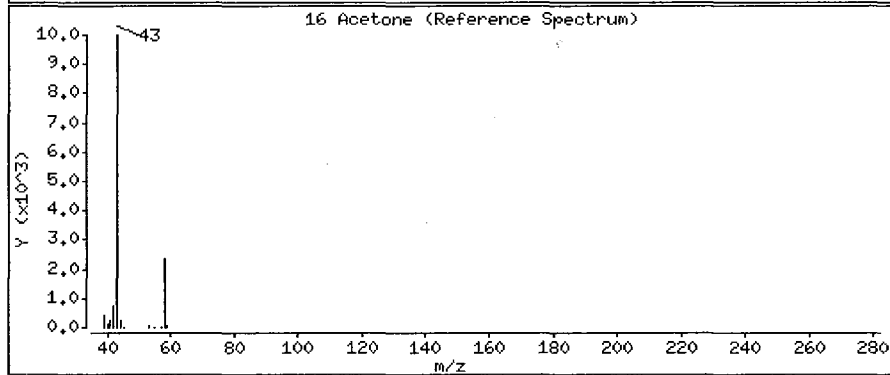
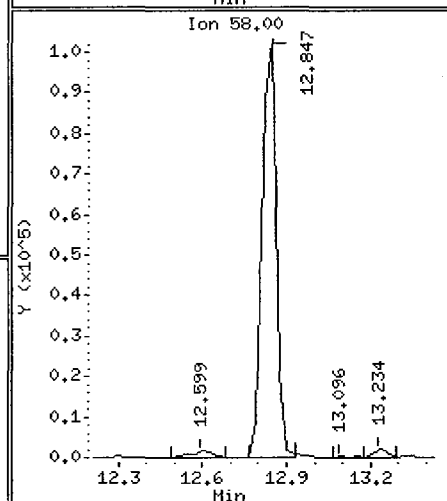
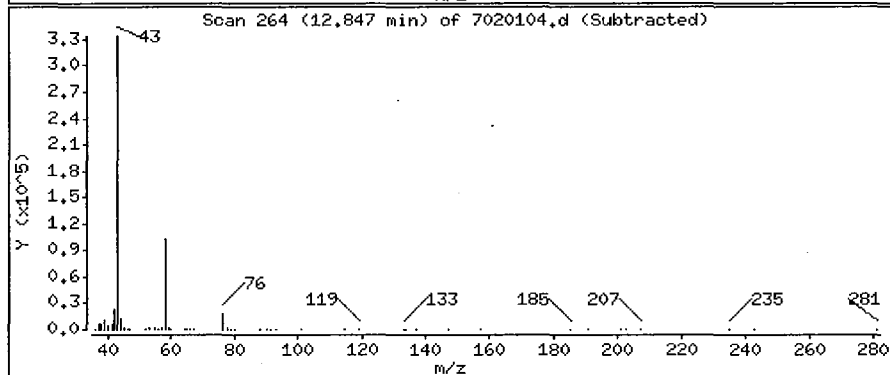
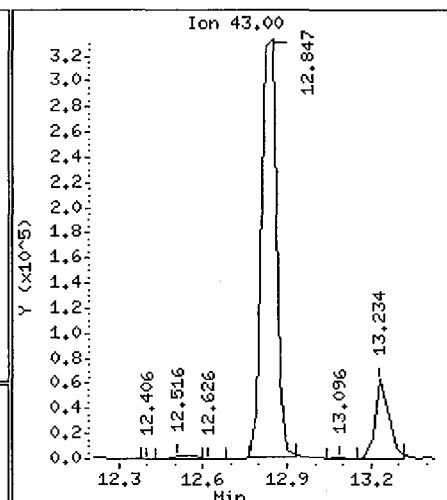
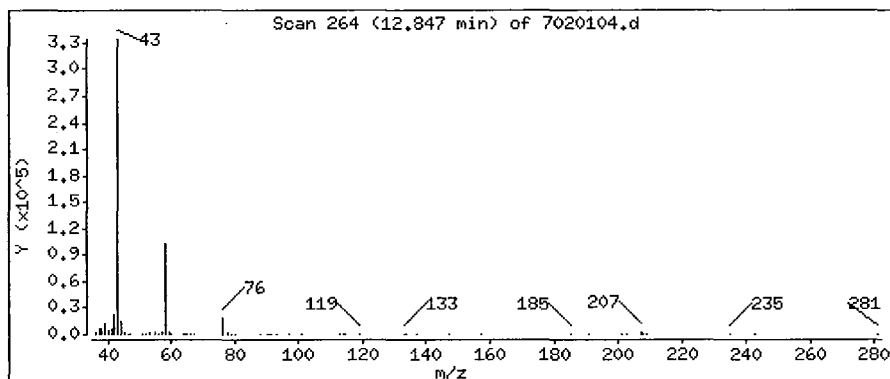
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 4,216 PPBV



0676

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

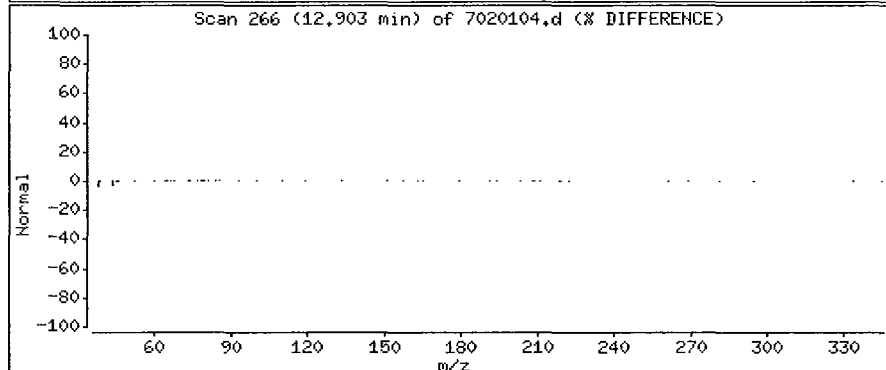
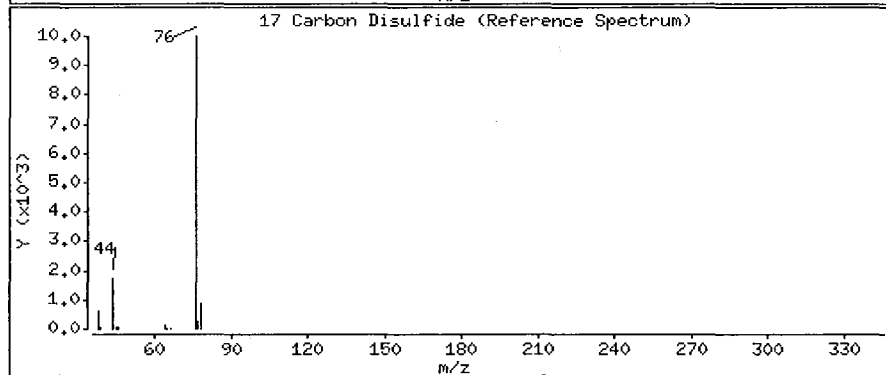
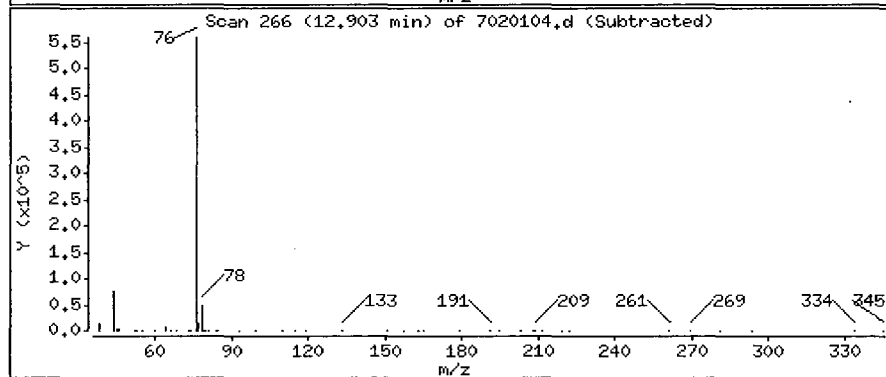
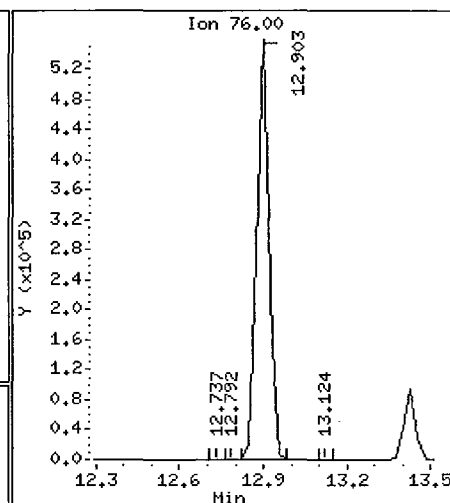
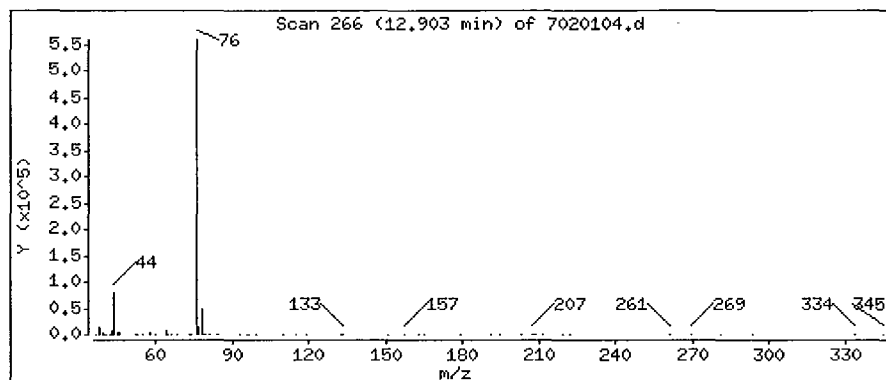
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 4,499 PPBV



0677

SCOEP00032349

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

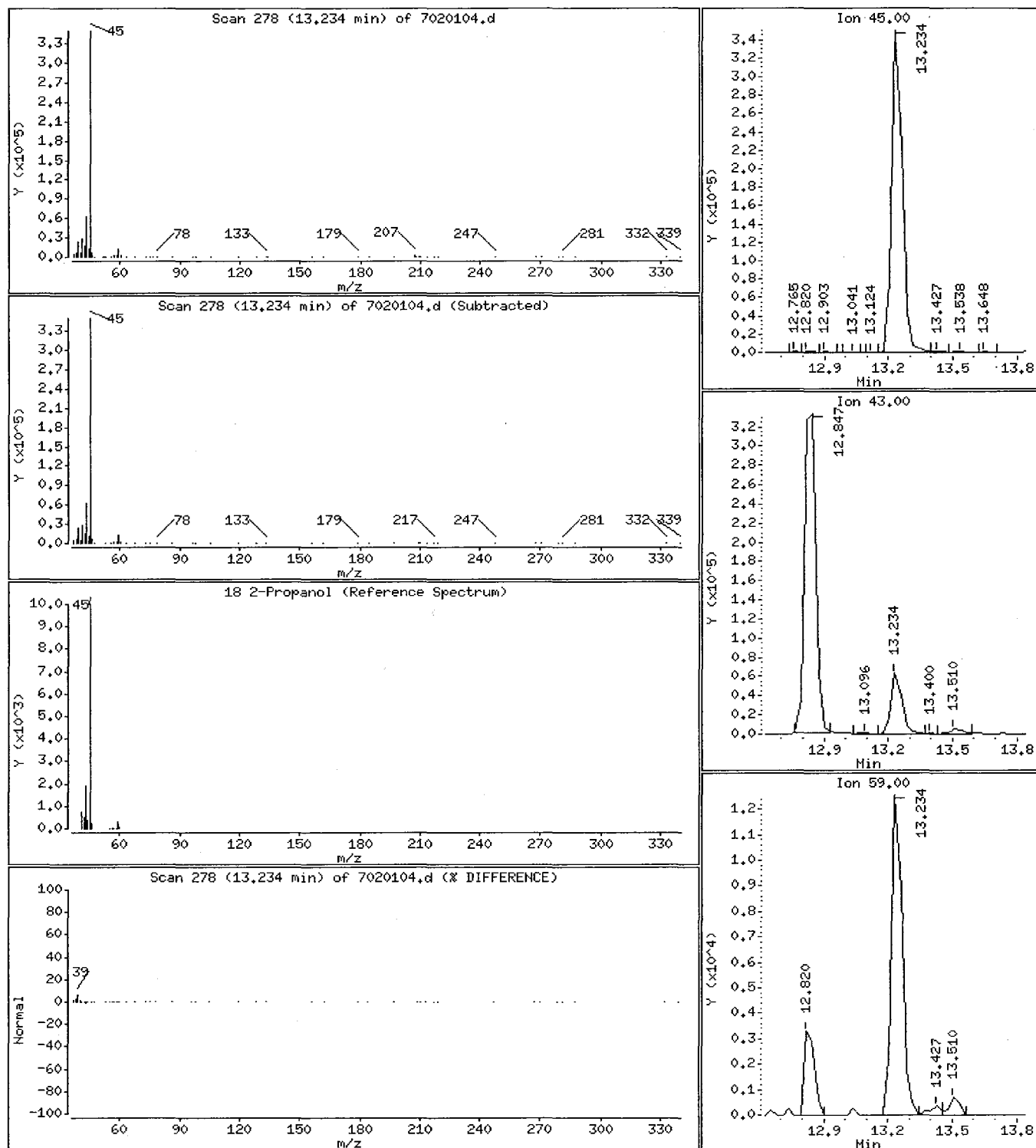
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 4.131 PPBV



0678

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

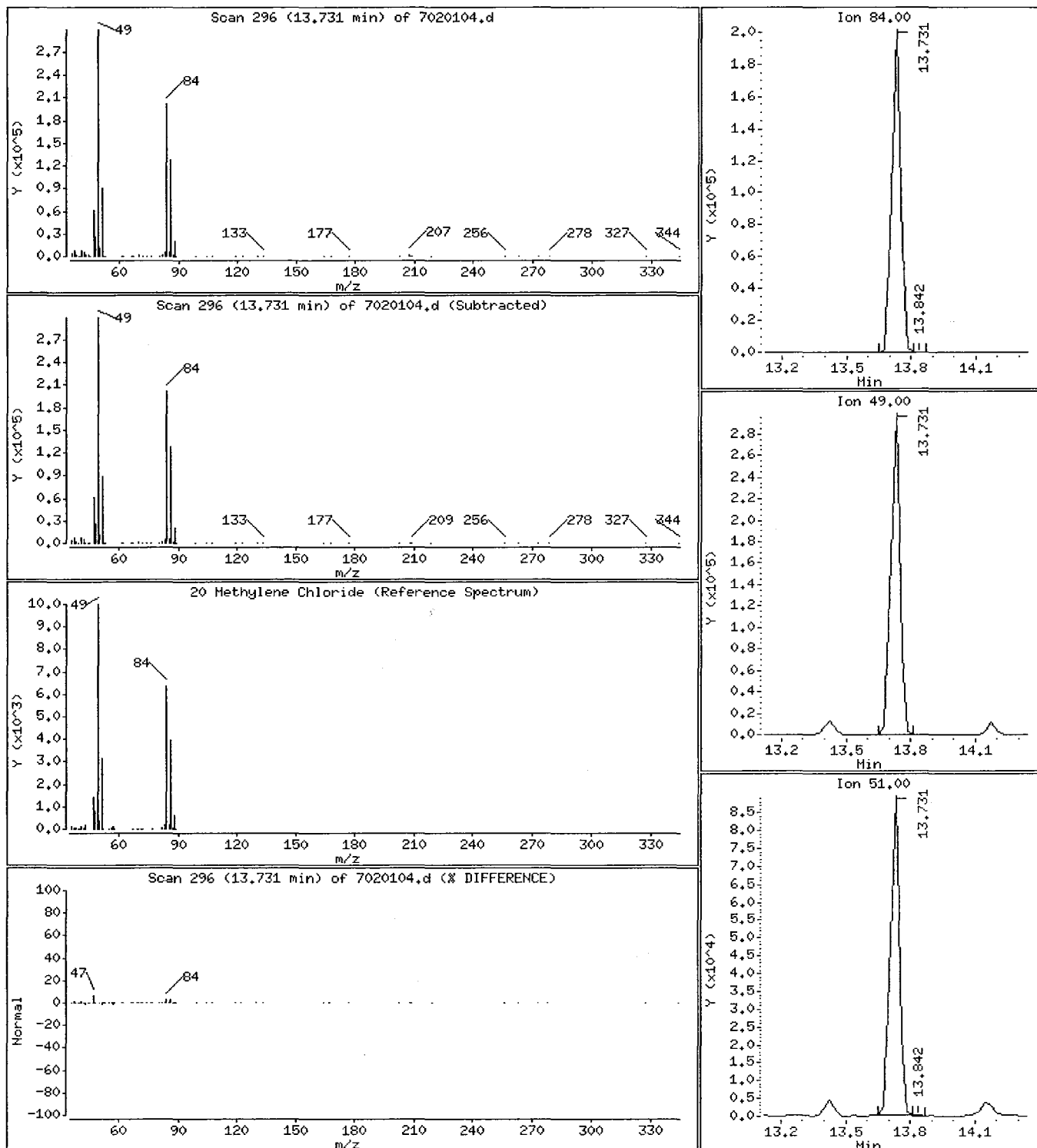
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 4,776 PPBV



0679

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

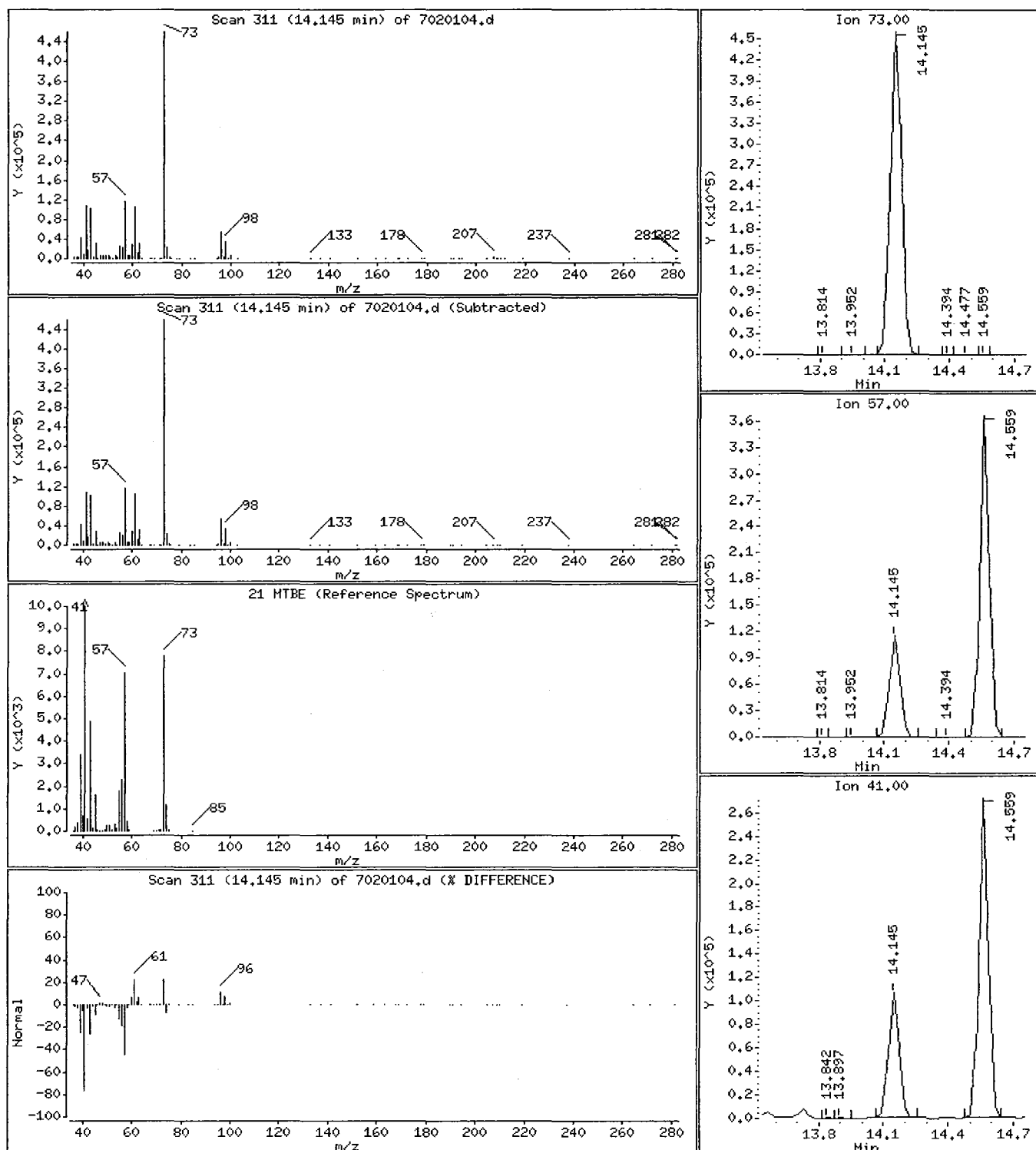
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

21 MTBE

Concentration: 5,112 PPBV



0680

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

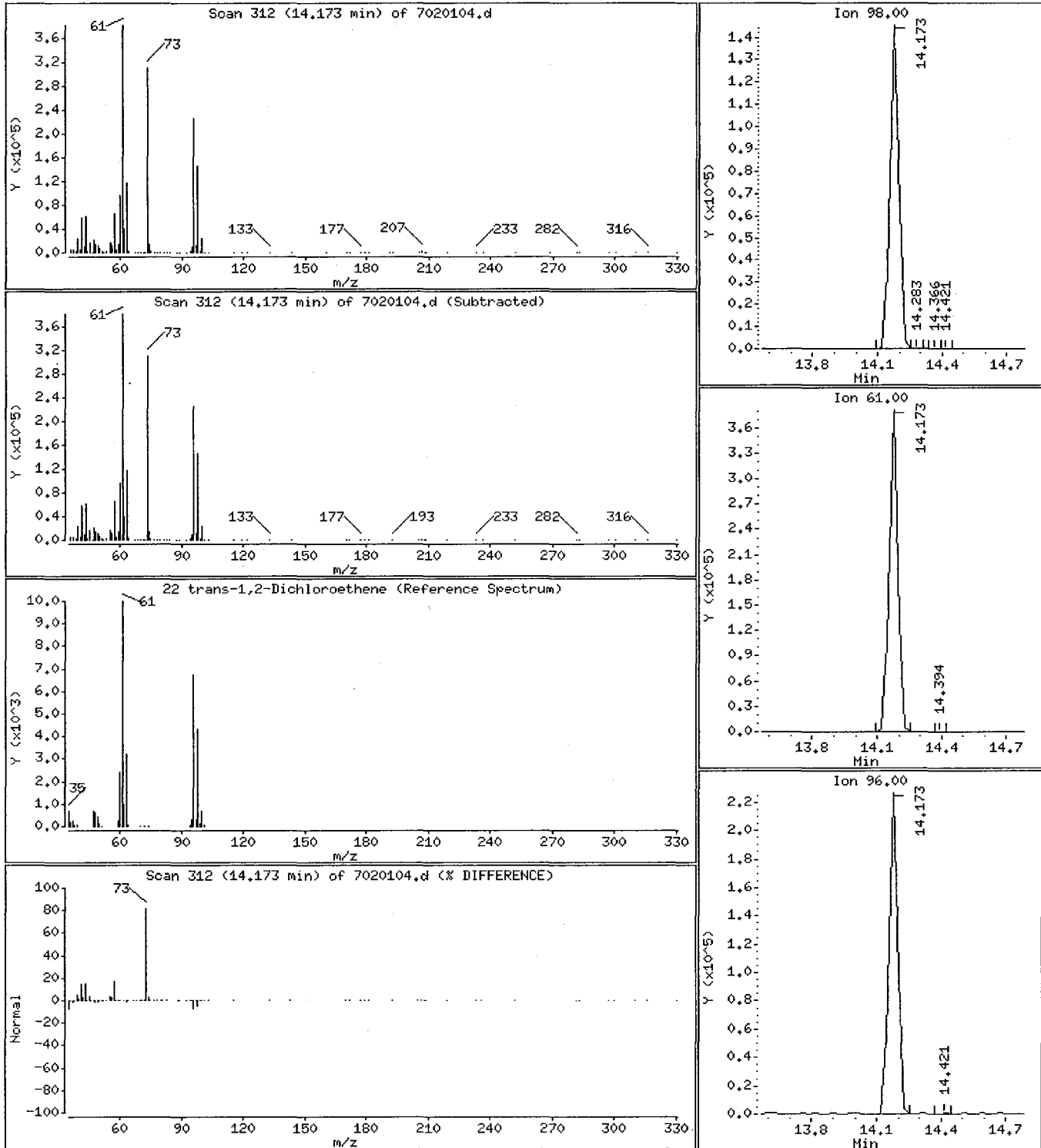
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

22 trans-1,2-Dichloroethene

Concentration: 4.628 PPBV



0681

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

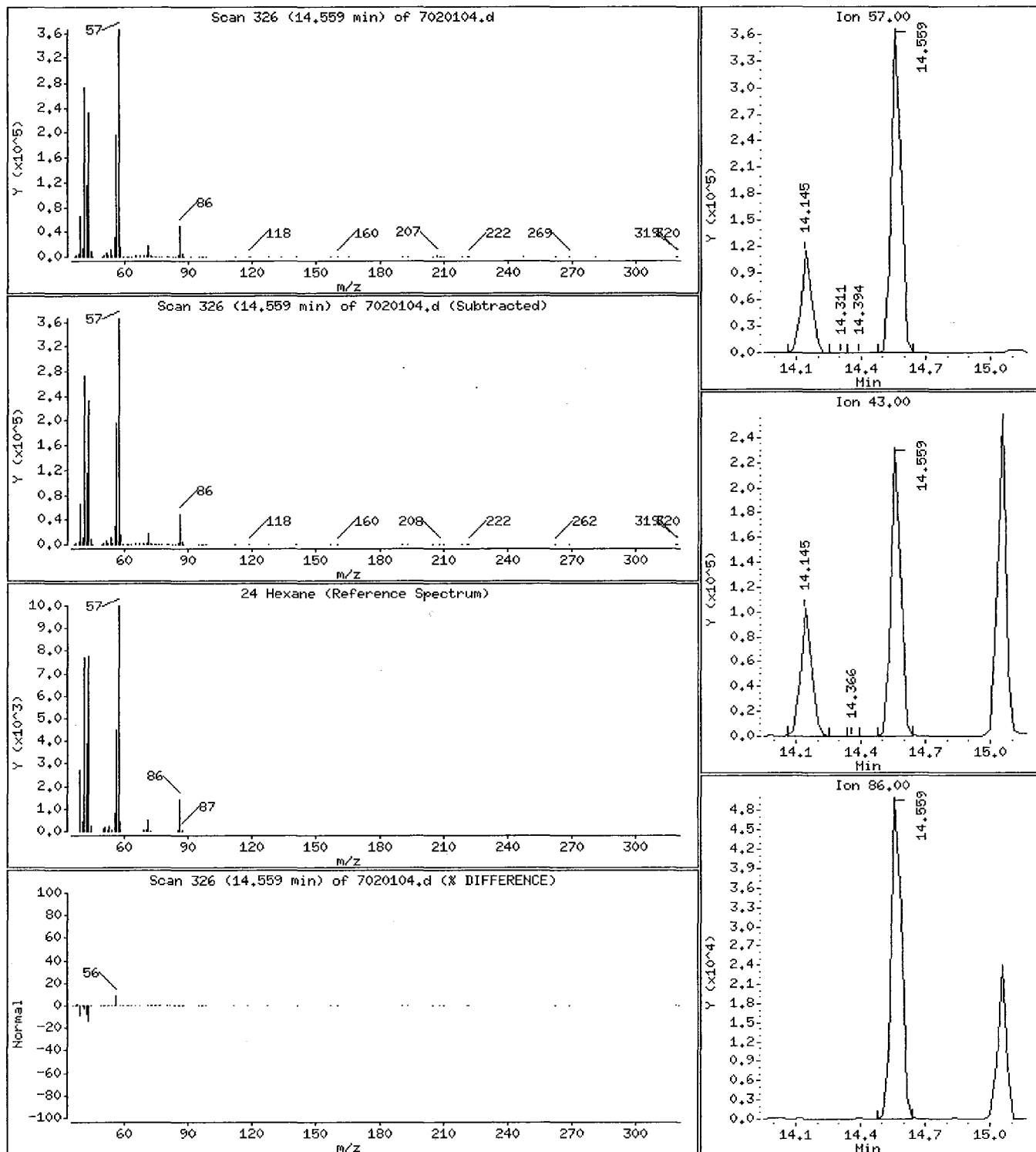
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 4,922 PPBV



0682

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

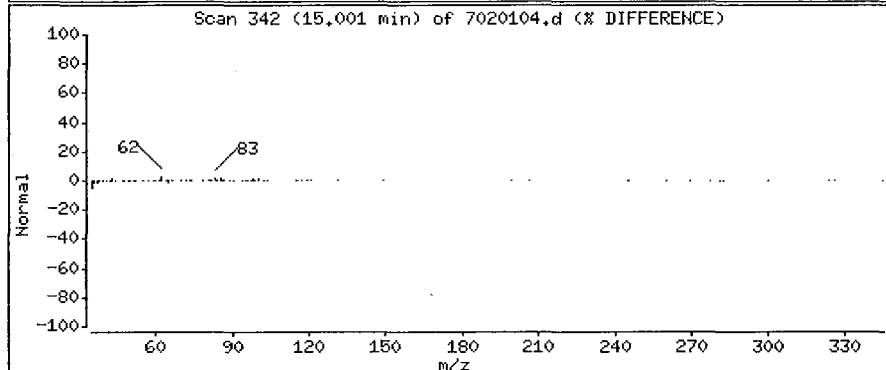
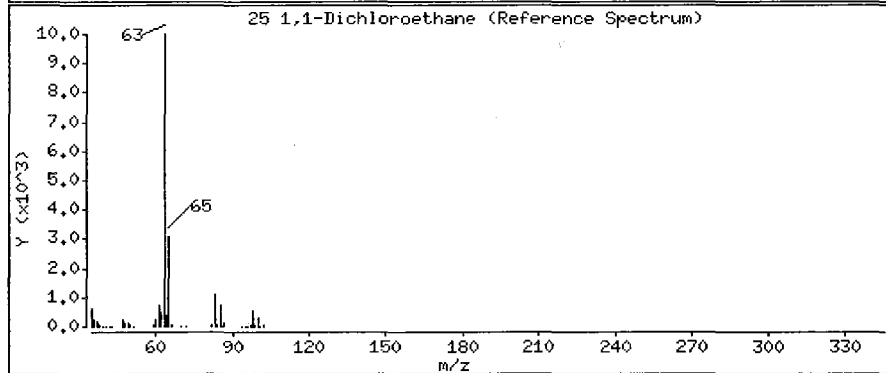
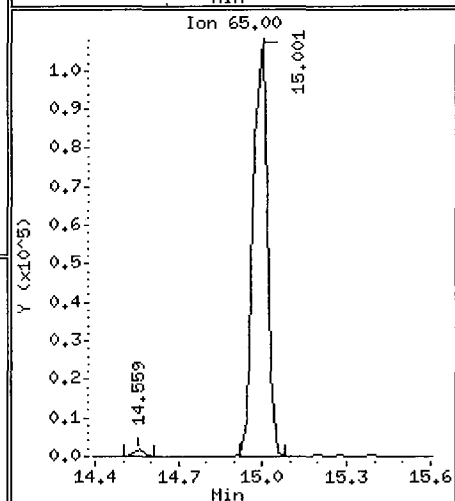
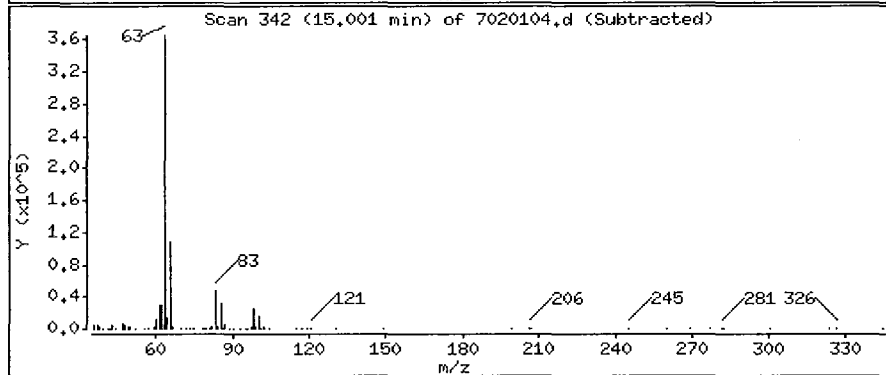
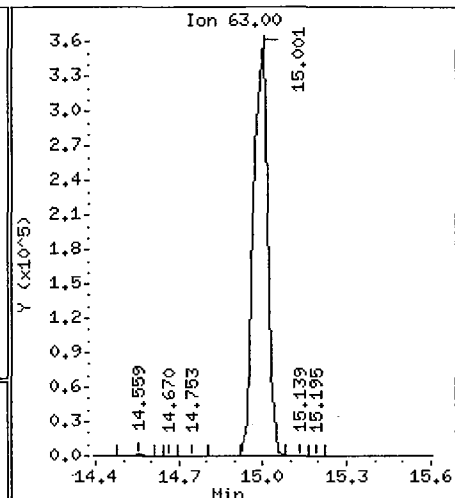
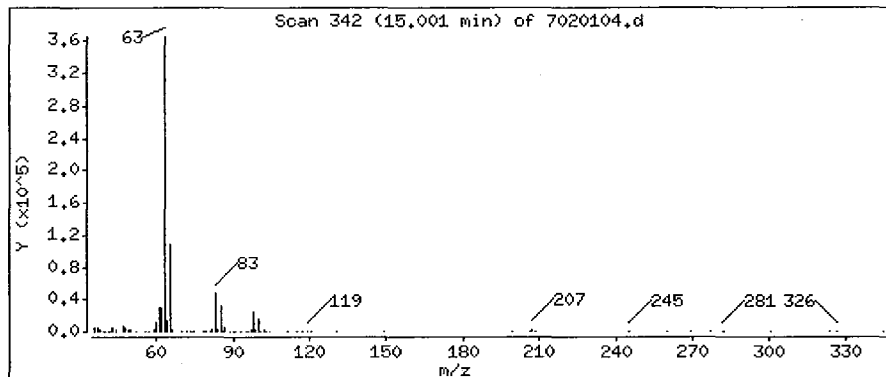
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

25 1,1-Dichloroethane

Concentration: 5,022 PPBV



0683

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

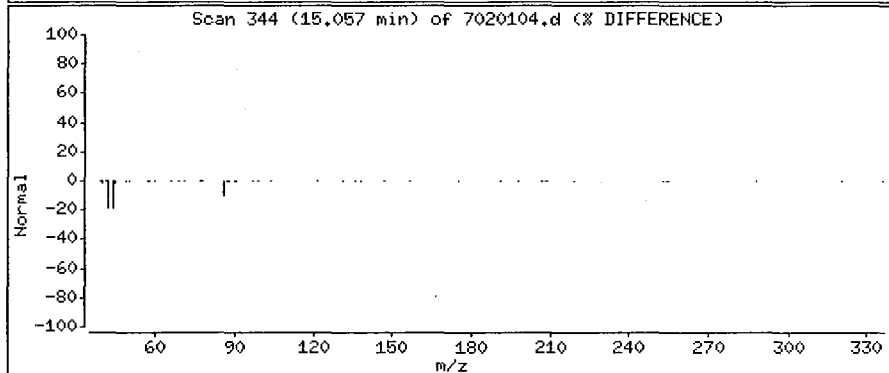
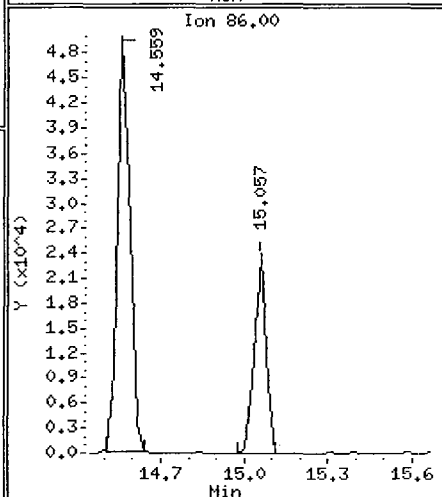
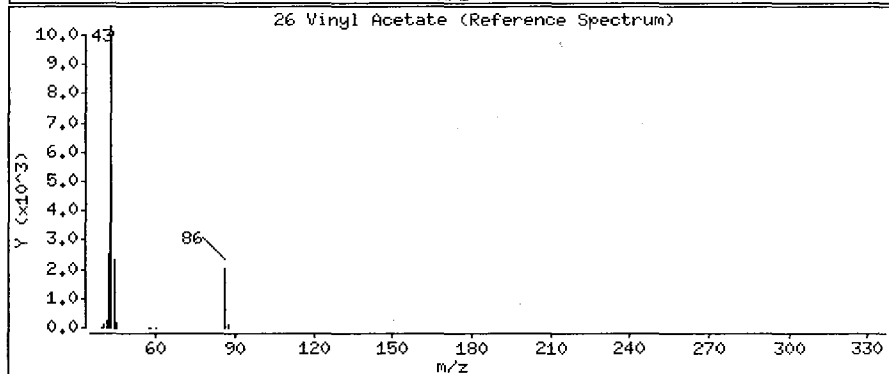
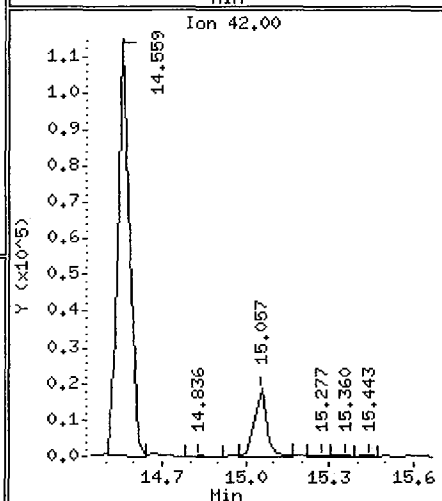
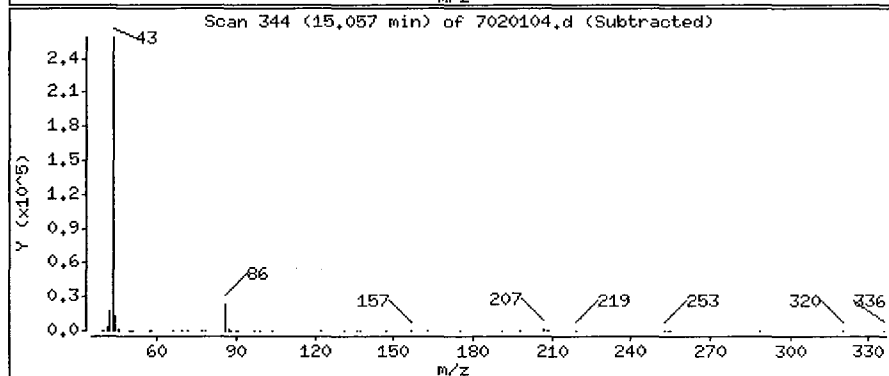
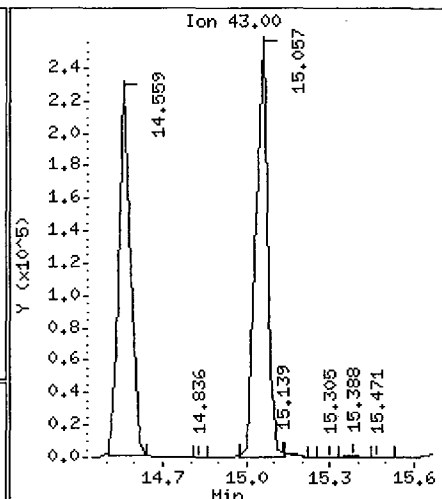
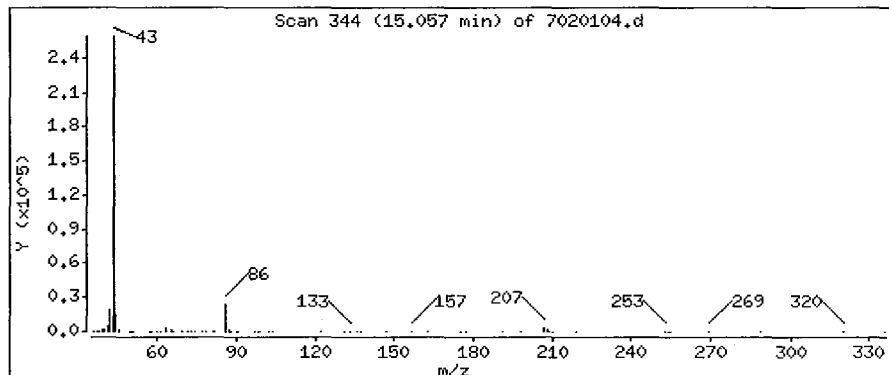
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

26 Vinyl Acetate

Concentration: 11,132 PPBV



0684

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

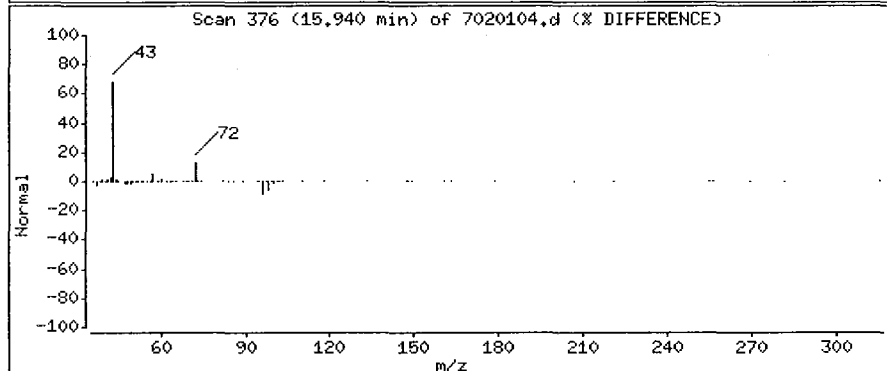
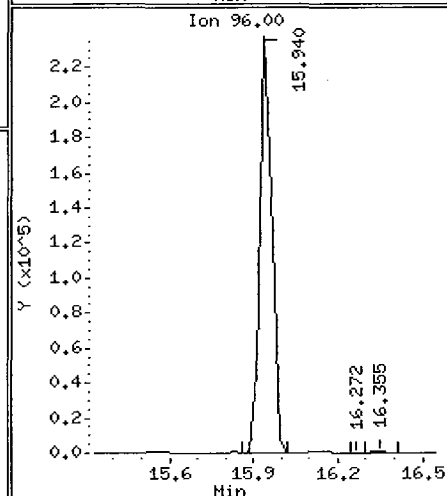
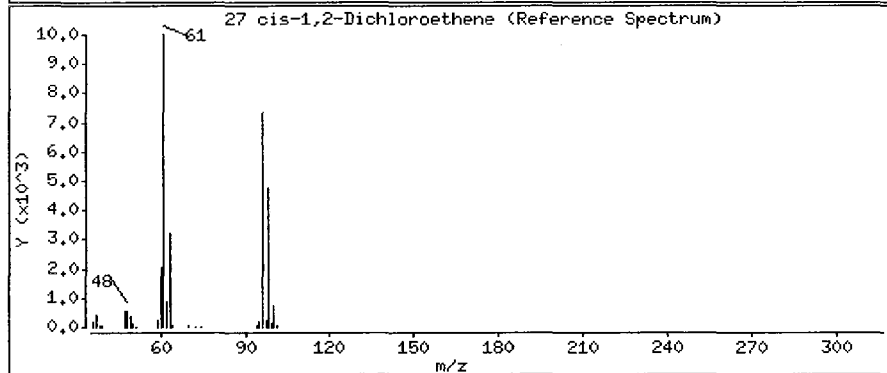
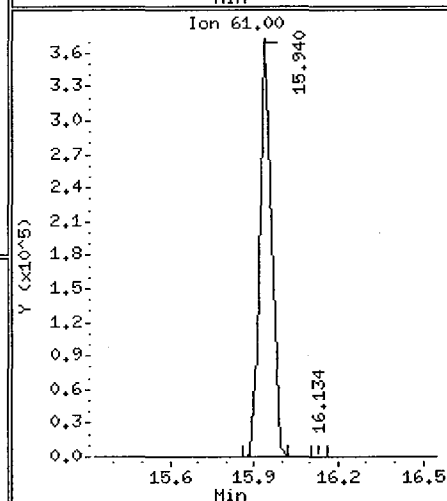
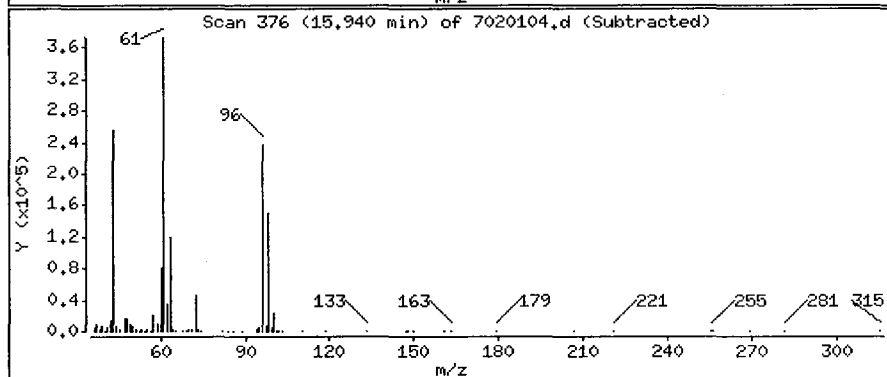
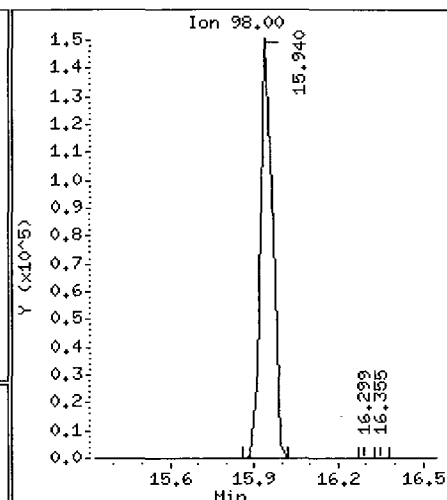
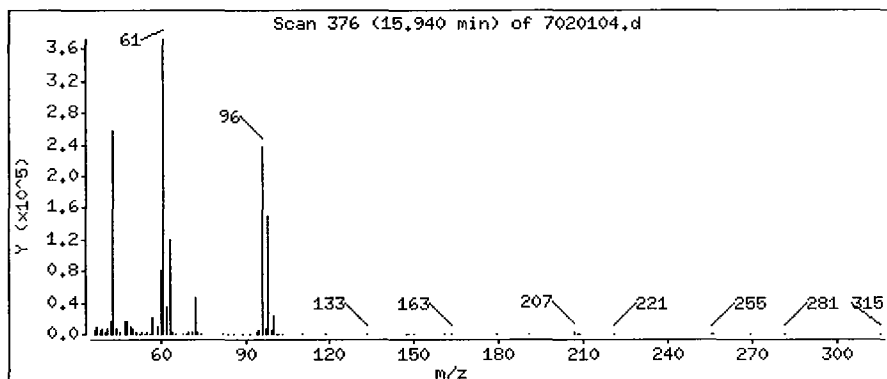
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

27 cis-1,2-Dichloroethene

Concentration: 5,295 PPBV



0685

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

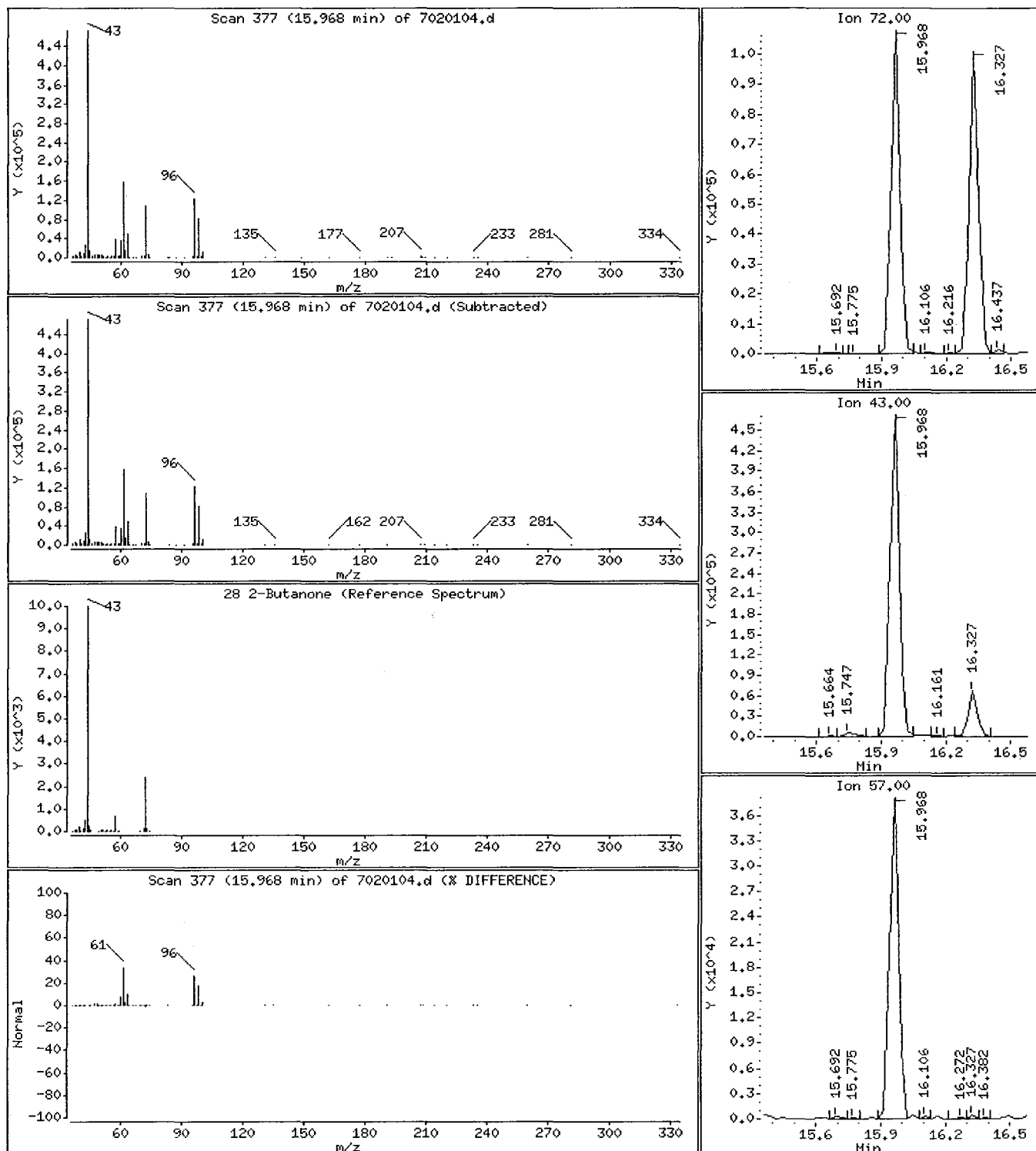
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 4,898 PPBV



Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

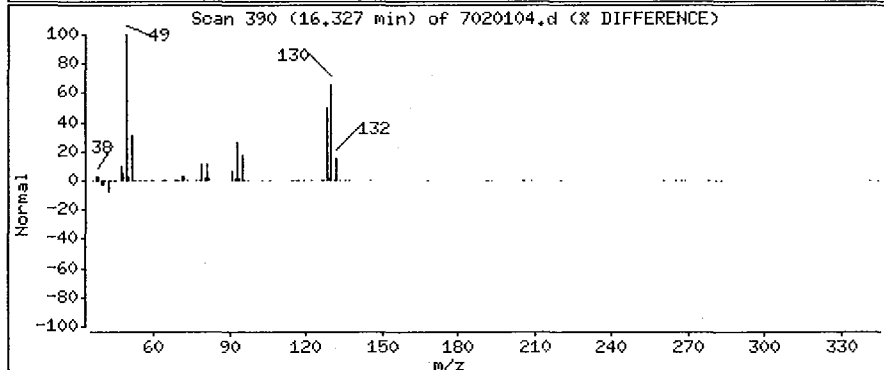
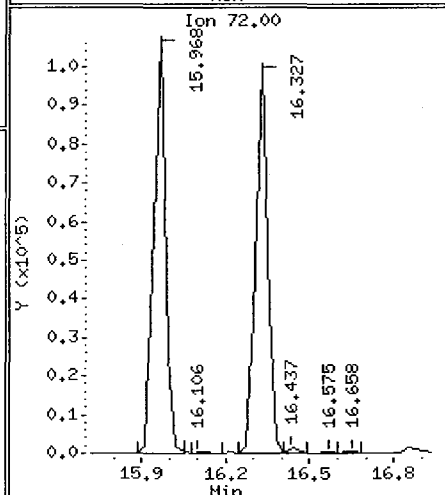
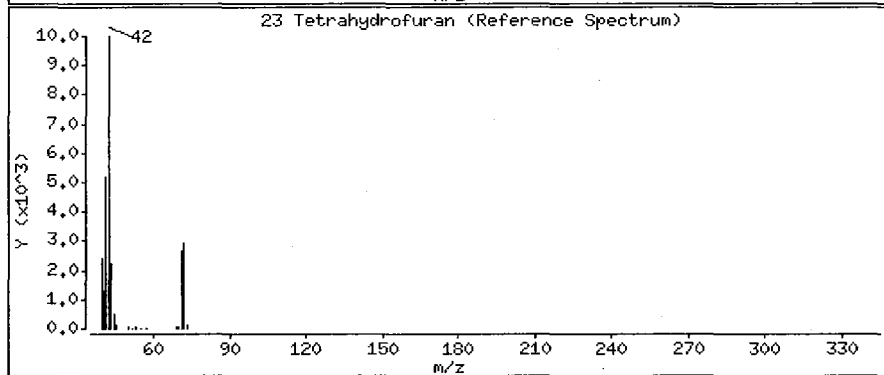
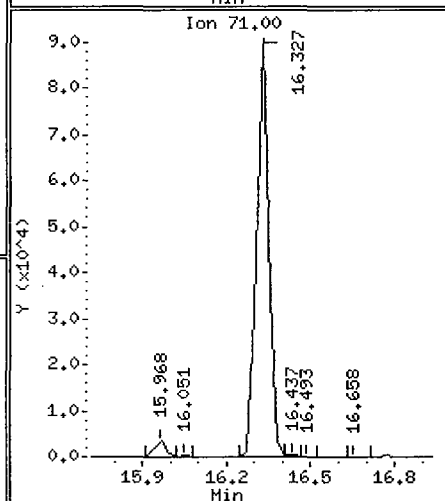
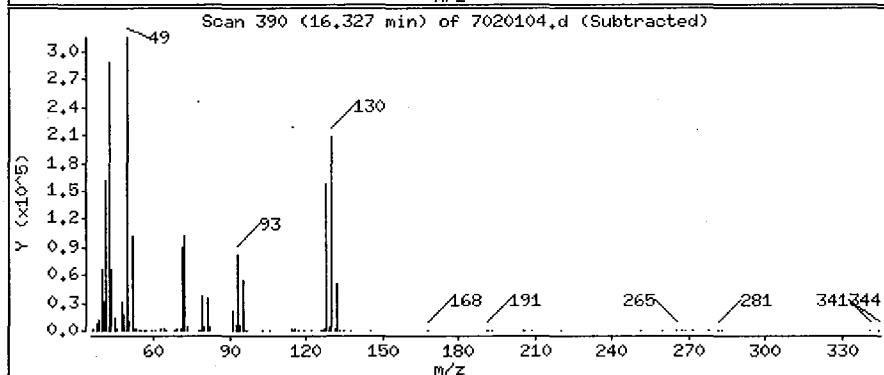
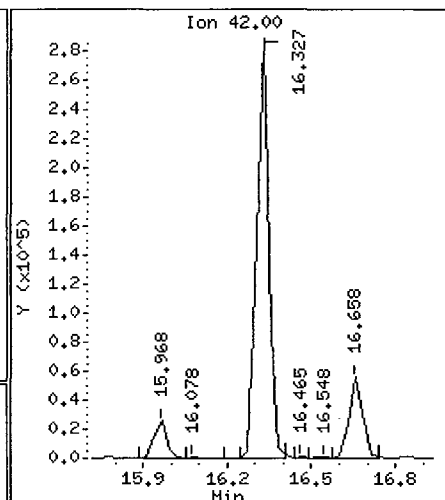
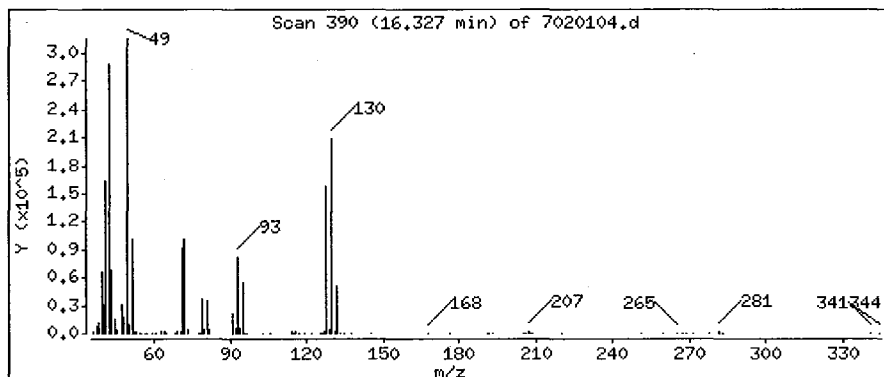
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 4.842 PPBV



0687

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

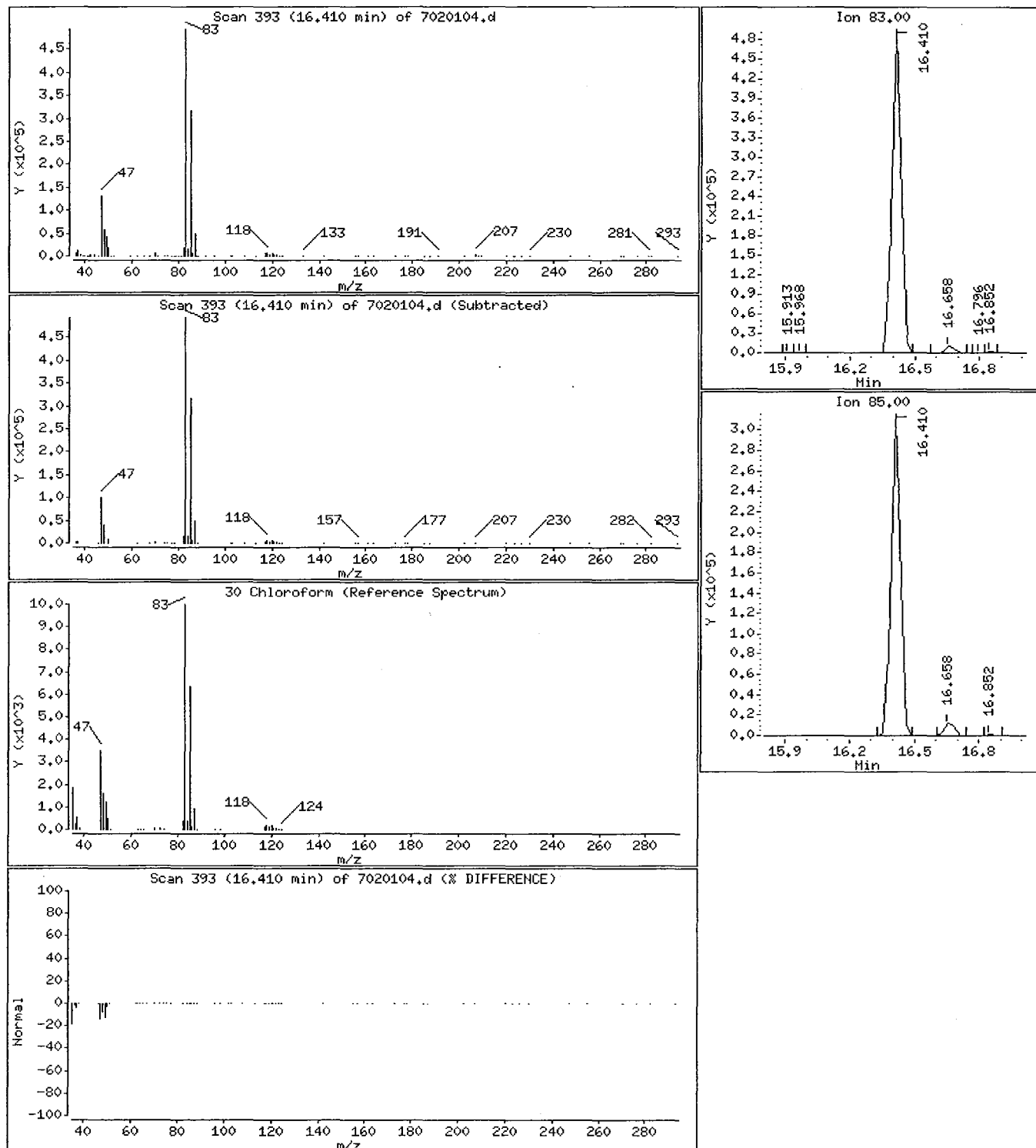
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

30 Chloroform

Concentration: 5,246 PPBV



0688

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

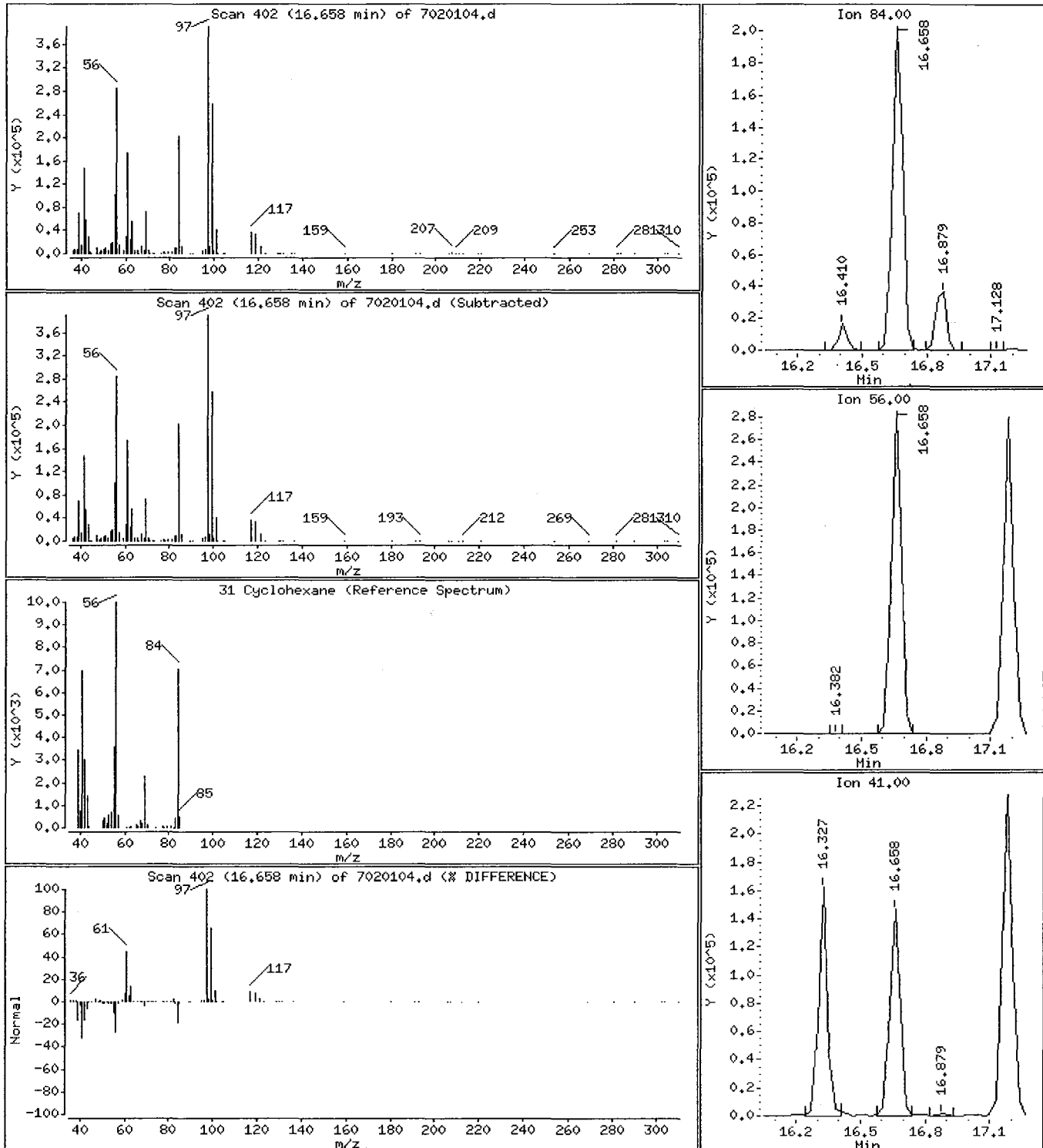
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 5.356 PPBV



0689

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

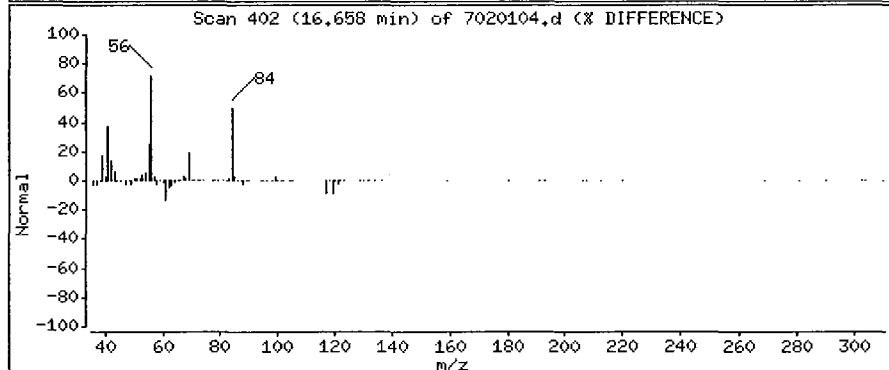
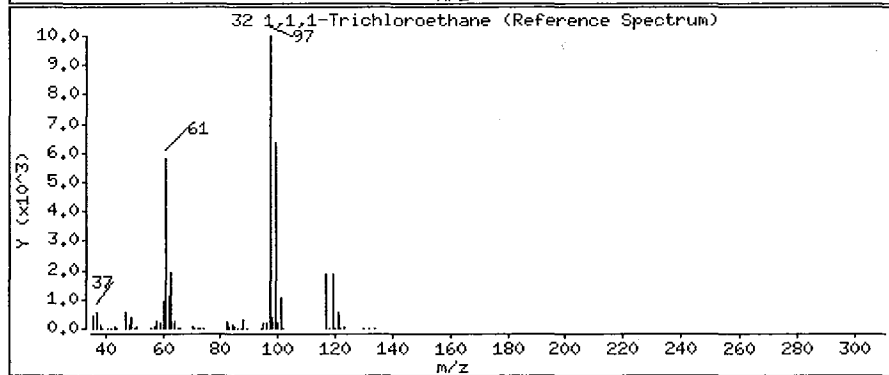
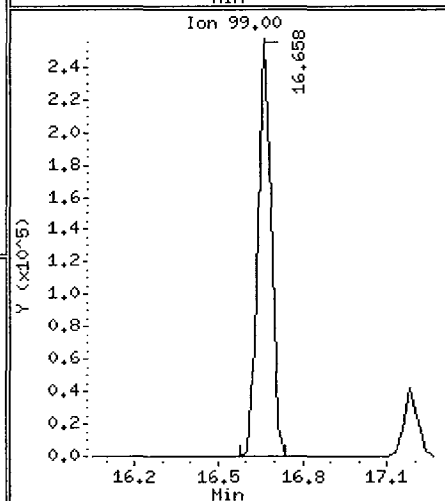
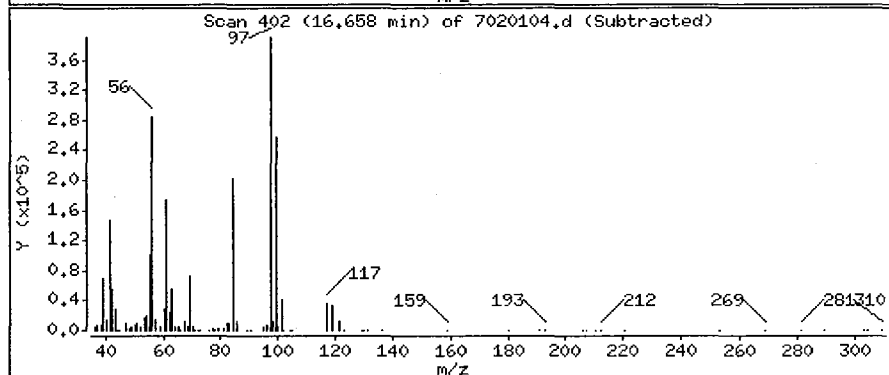
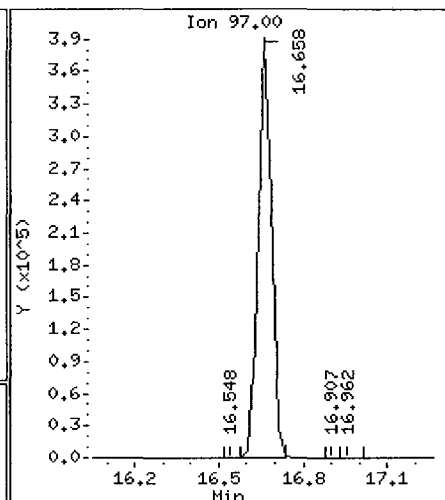
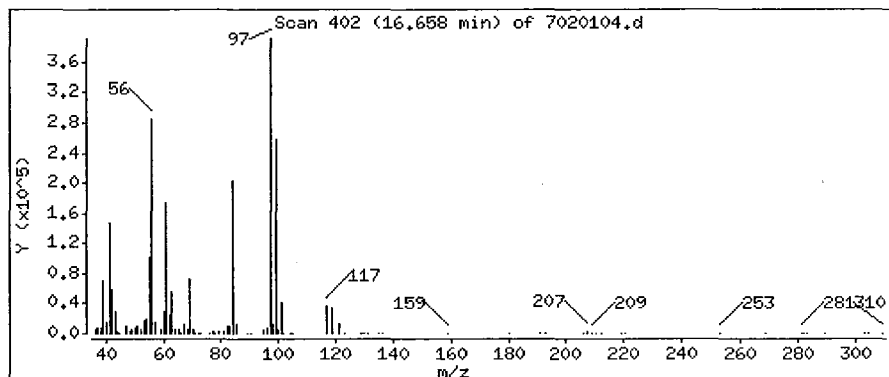
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

32 1,1,1-Trichloroethane

Concentration: 5.720 PPBV



0690

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

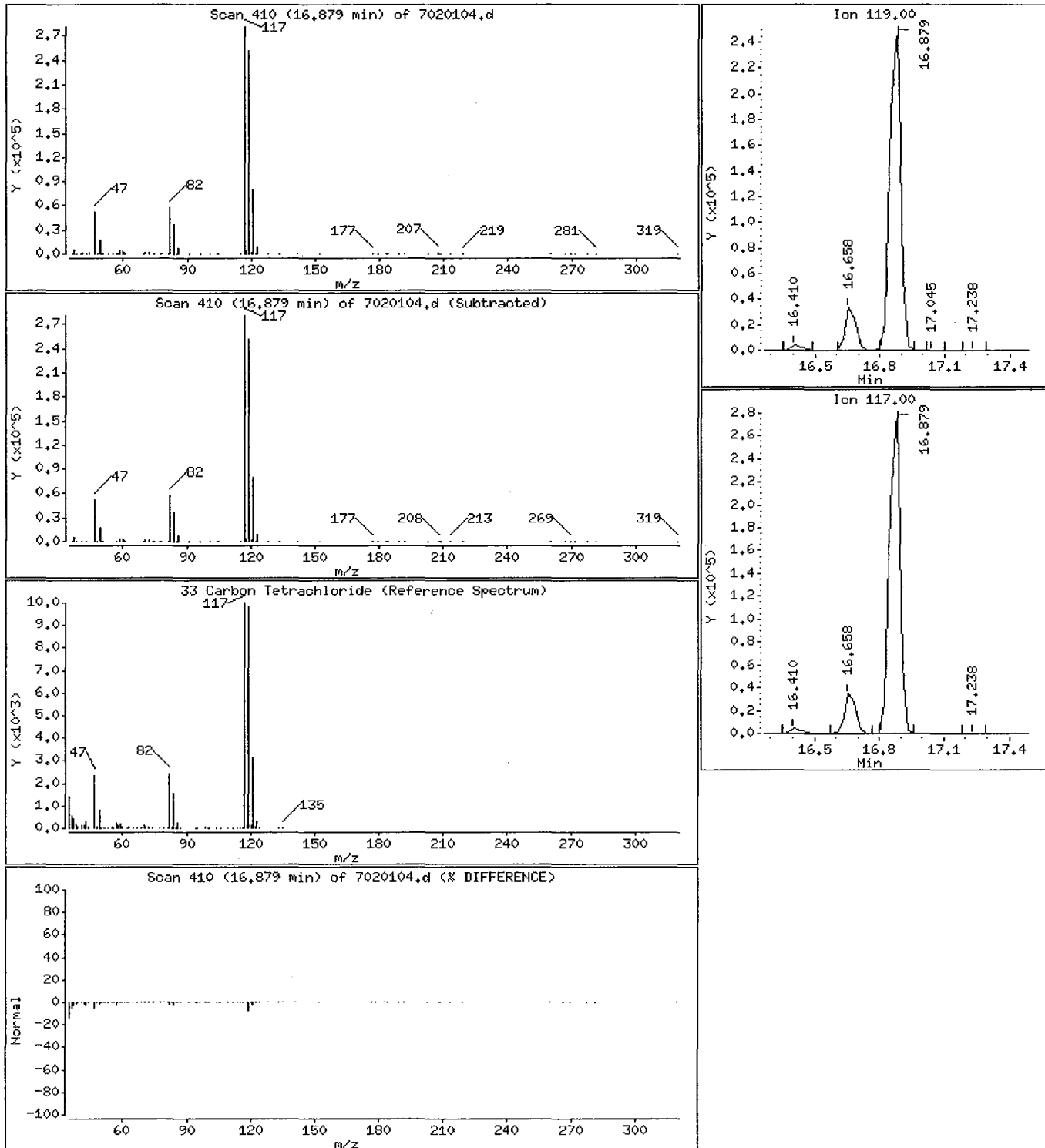
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 4,198 PPBV



0691

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

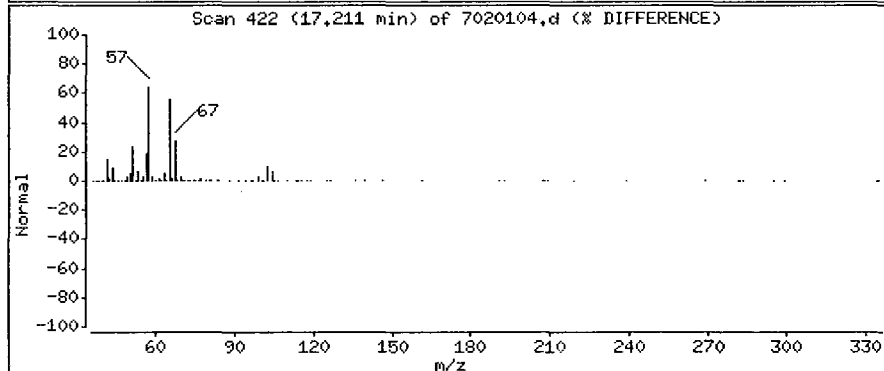
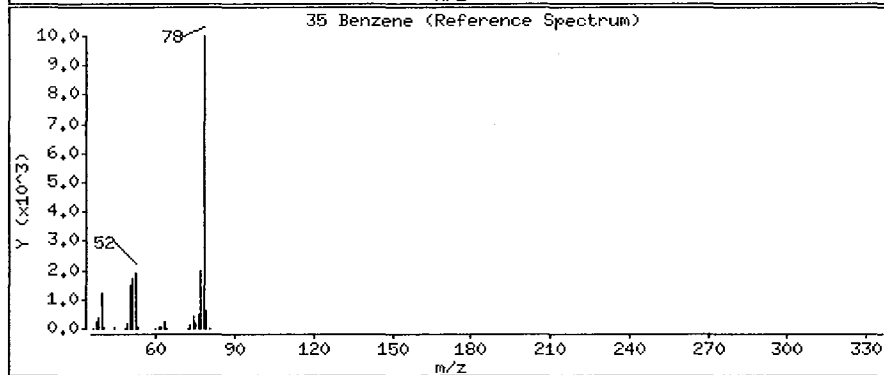
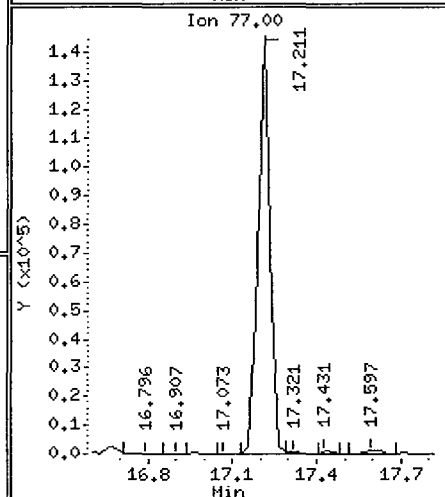
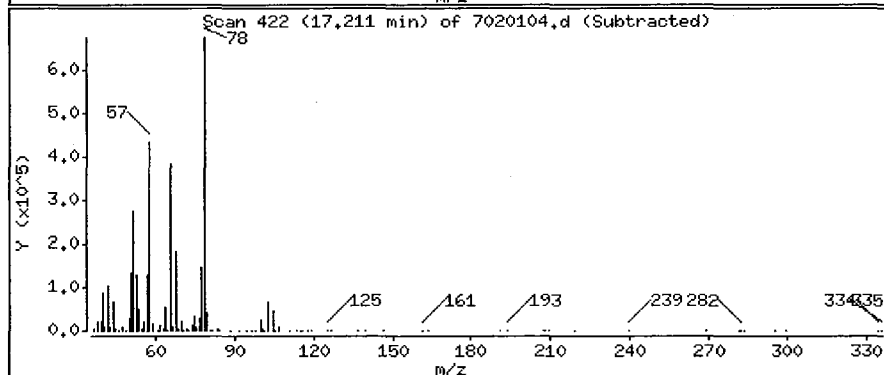
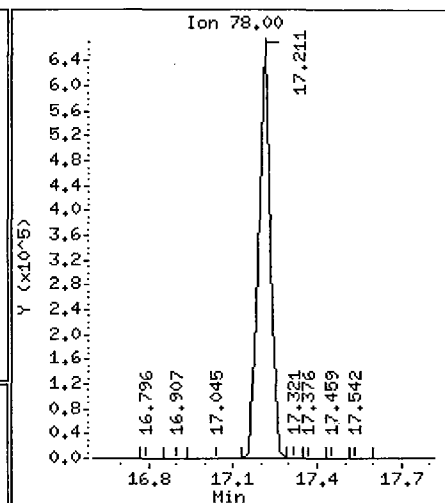
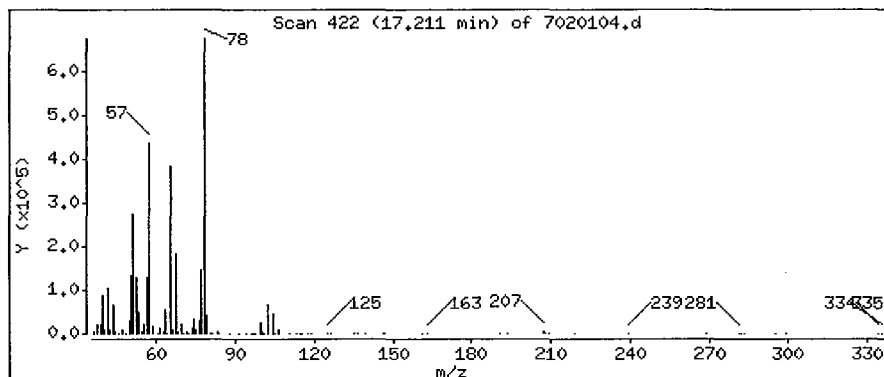
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

35 Benzene

Concentration: 4.890 PPBV



0692

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

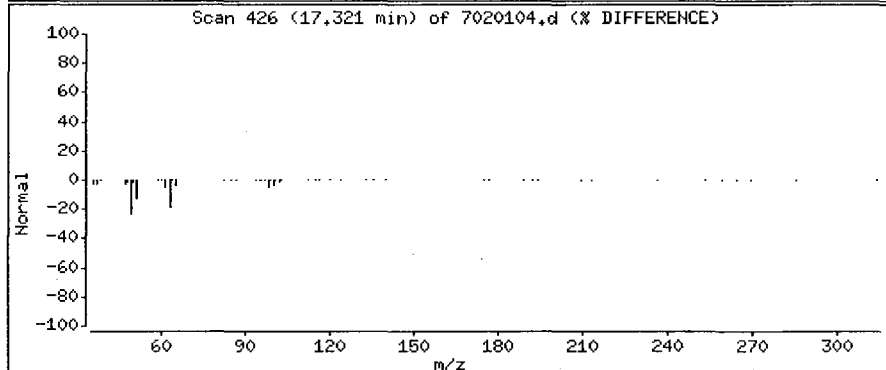
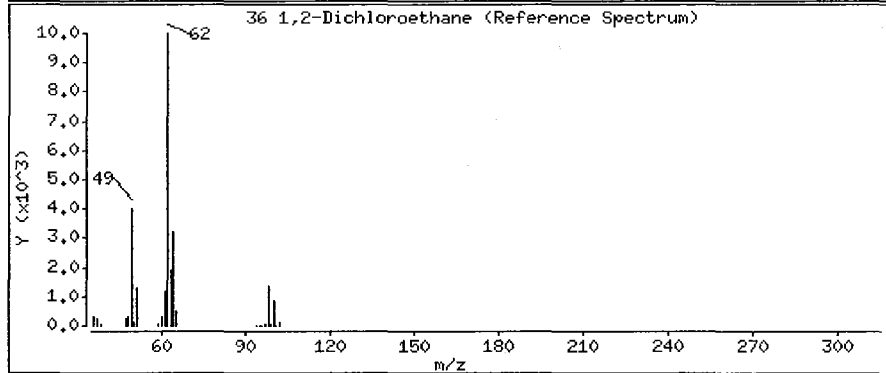
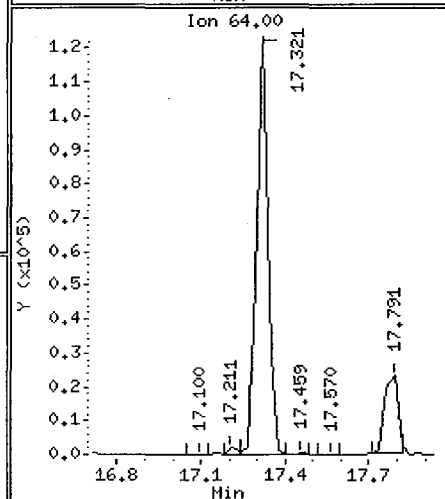
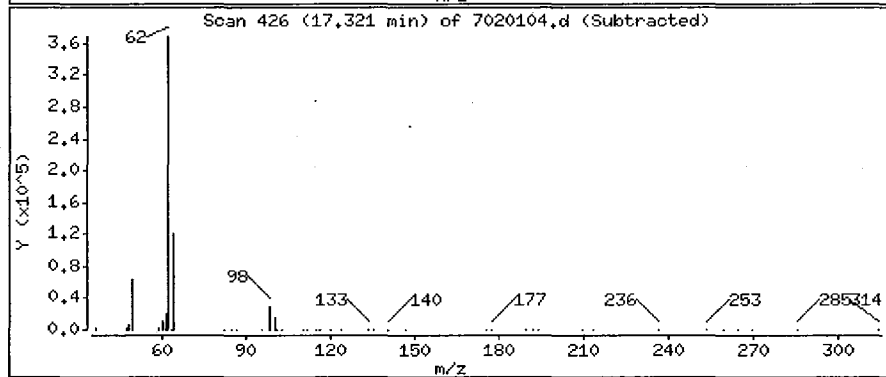
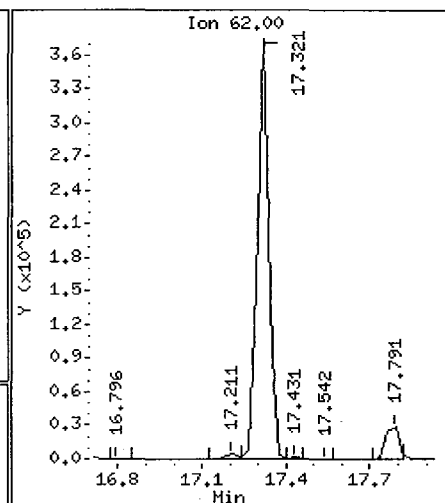
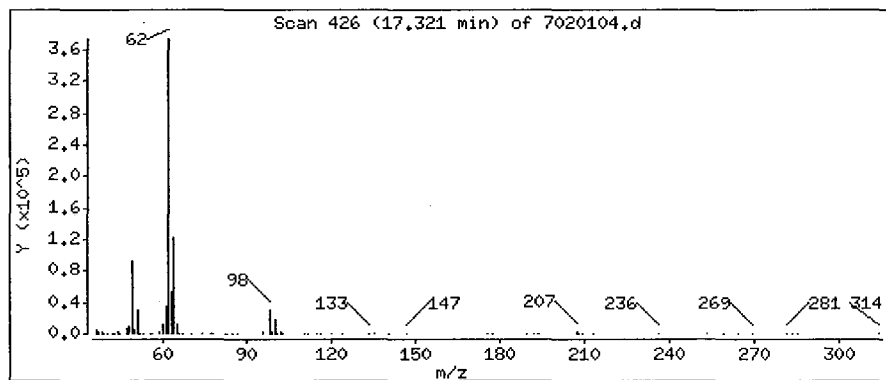
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

36 1,2-Dichloroethane

Concentration: 5.512 PPBV



0693

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

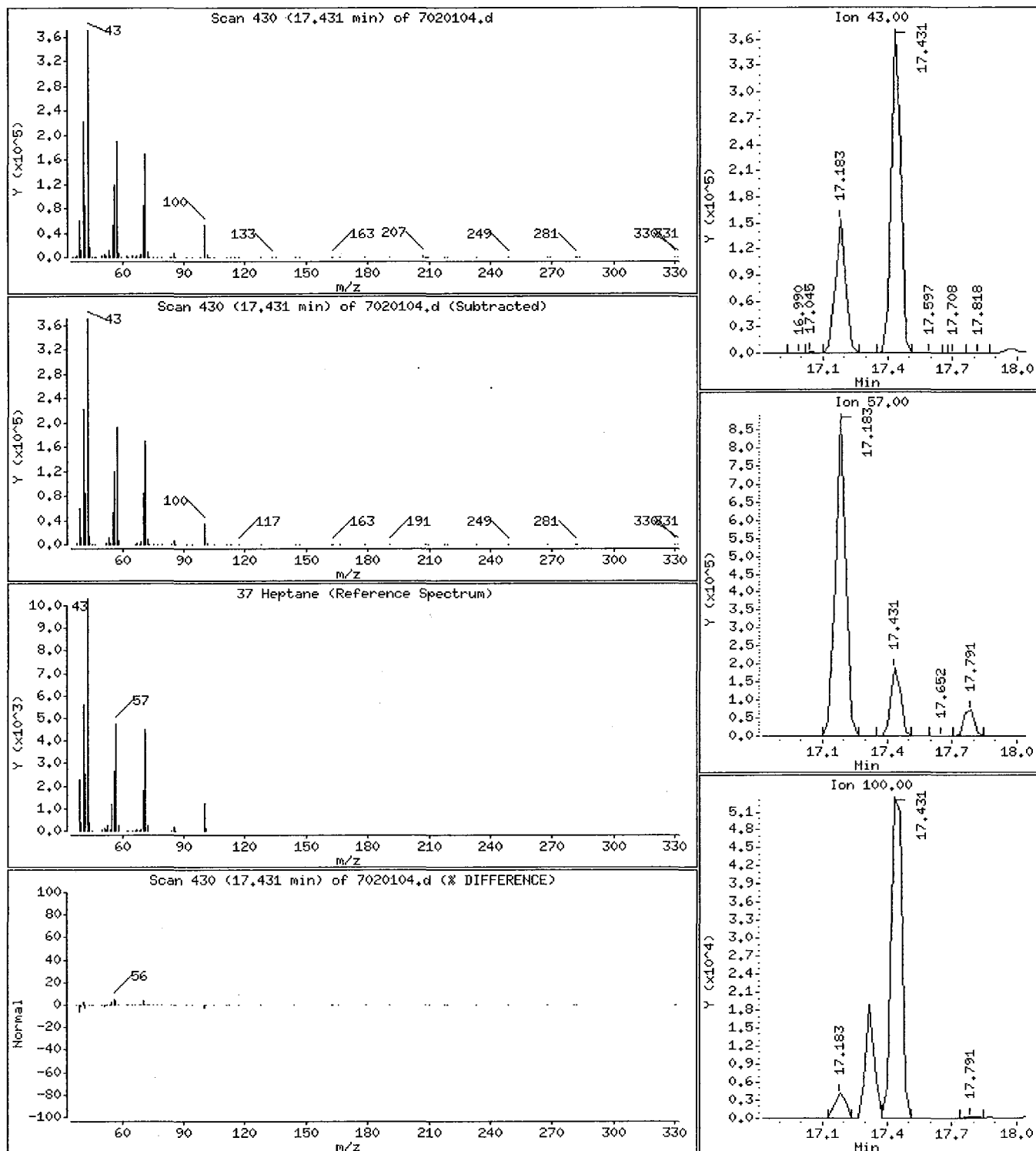
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 4,902 PPBV



0694

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

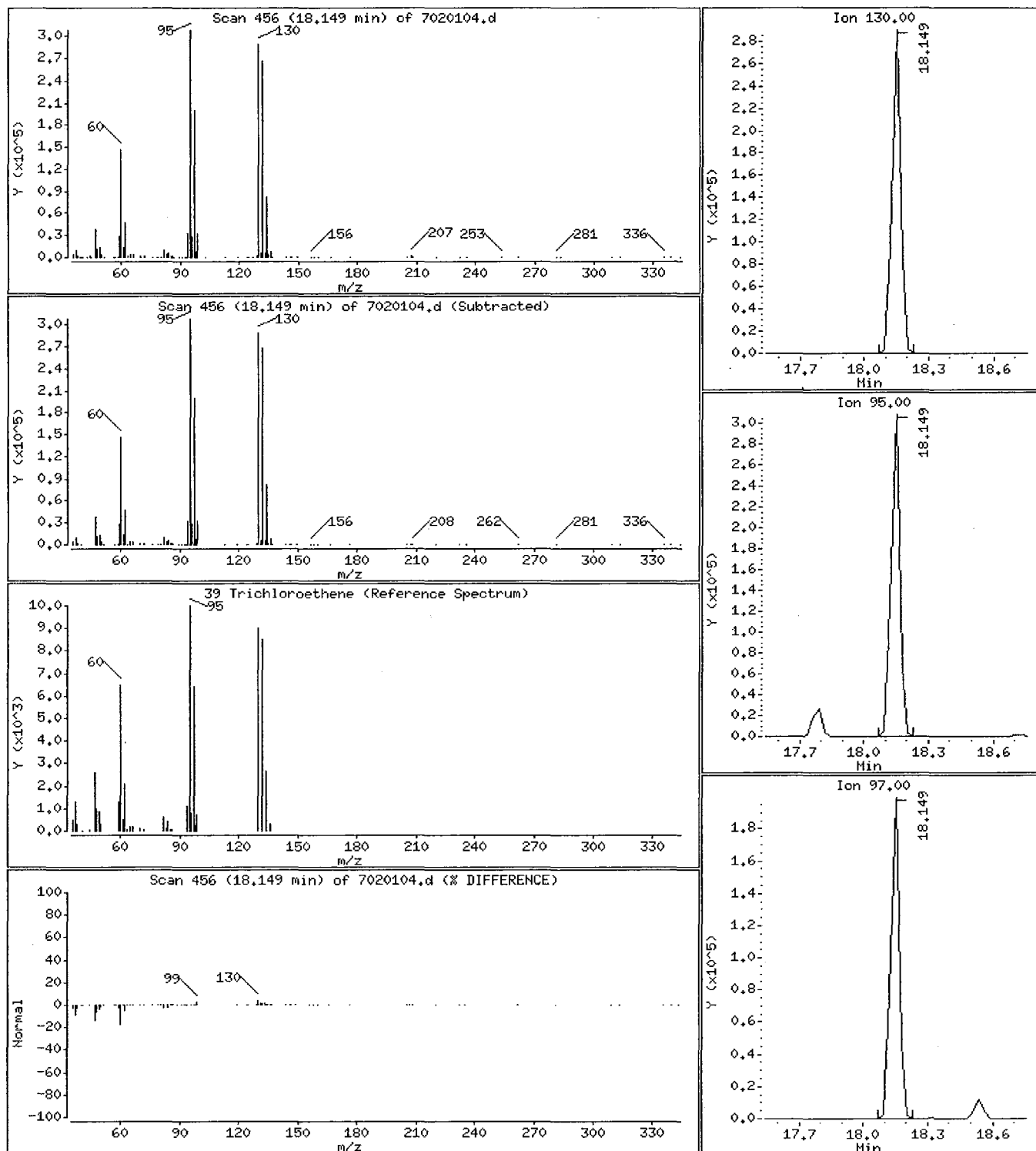
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

39 Trichloroethene

Concentration: 5.759 PPBV



0695

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

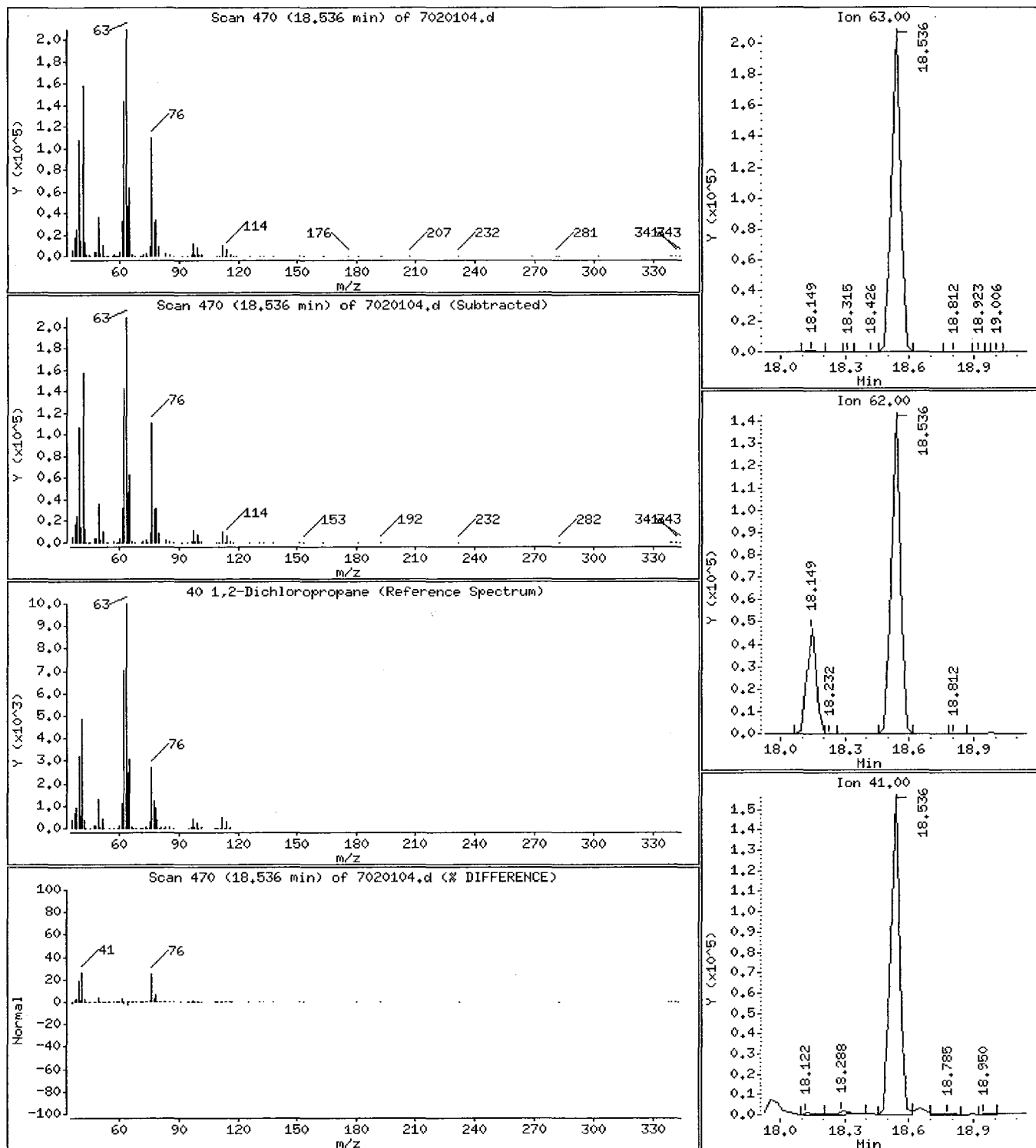
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

40 1,2-Dichloropropane

Concentration: 5.345 PPBV



0696

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

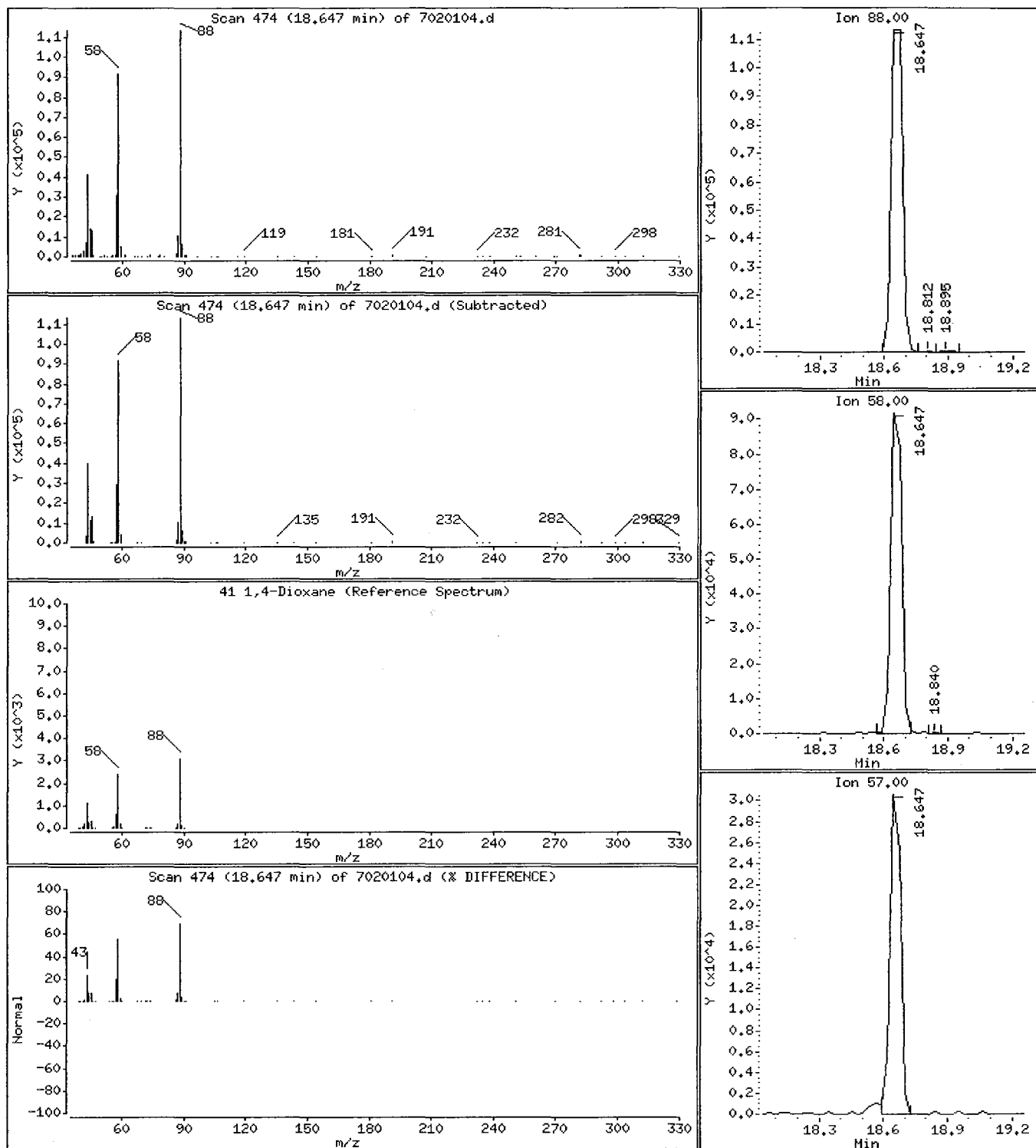
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

41 1,4-Dioxane

Concentration: 5.237 PPBV



0697

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

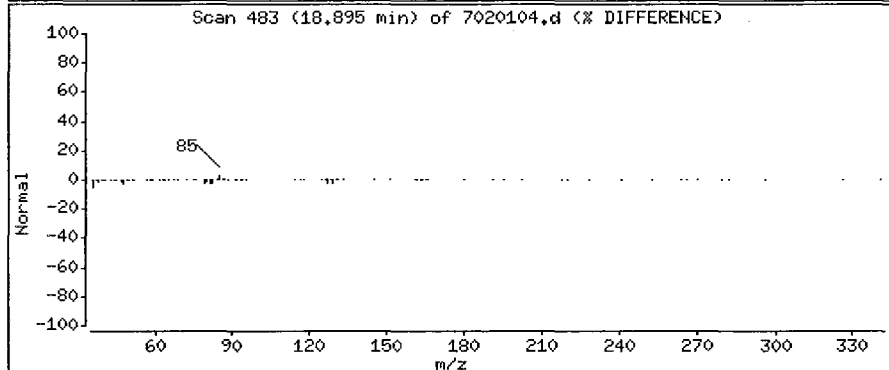
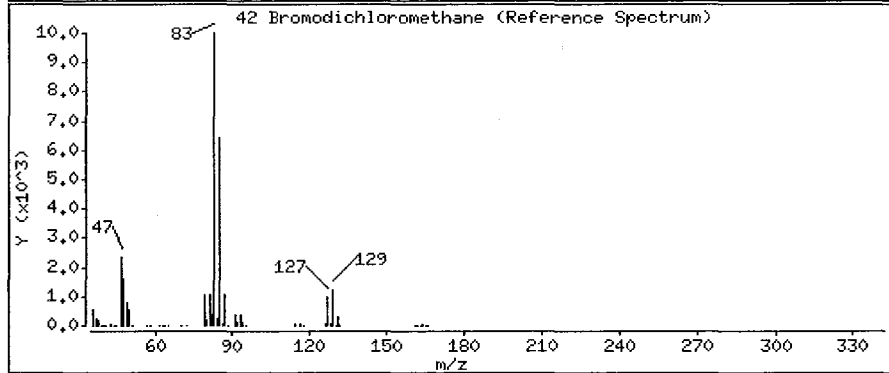
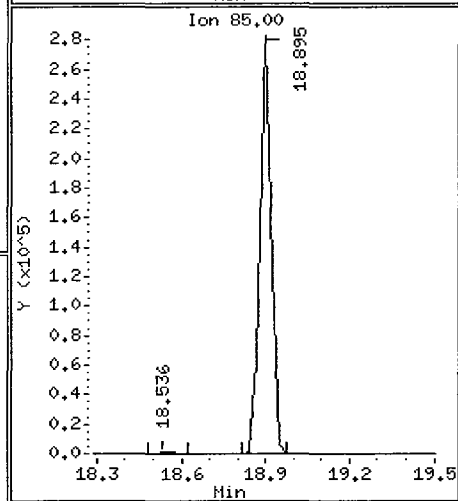
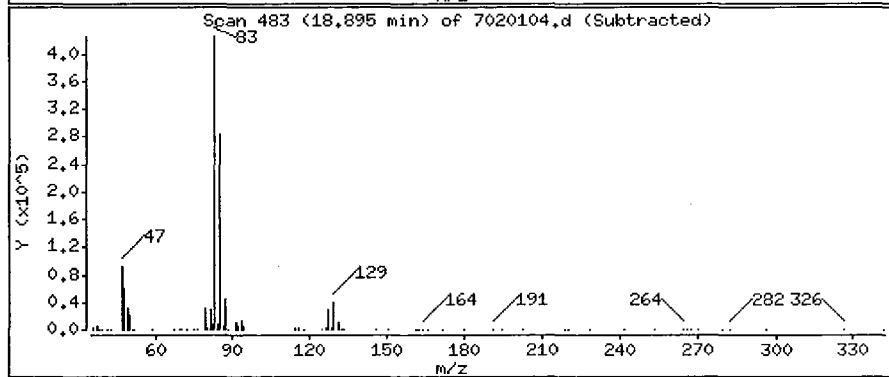
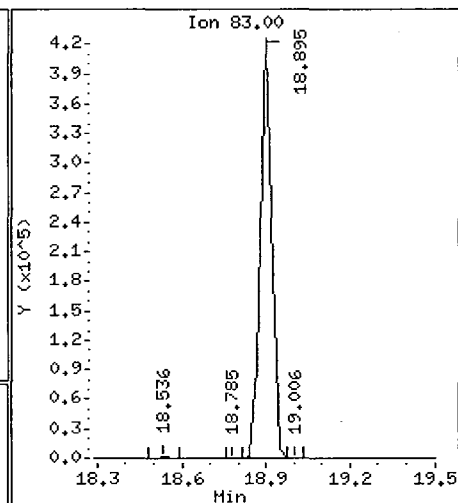
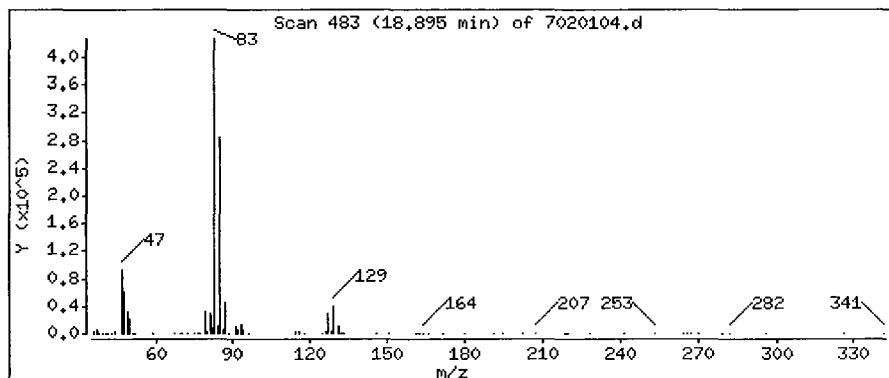
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

42 Bromodichloromethane

Concentration: 4,690 PPBV



0698

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

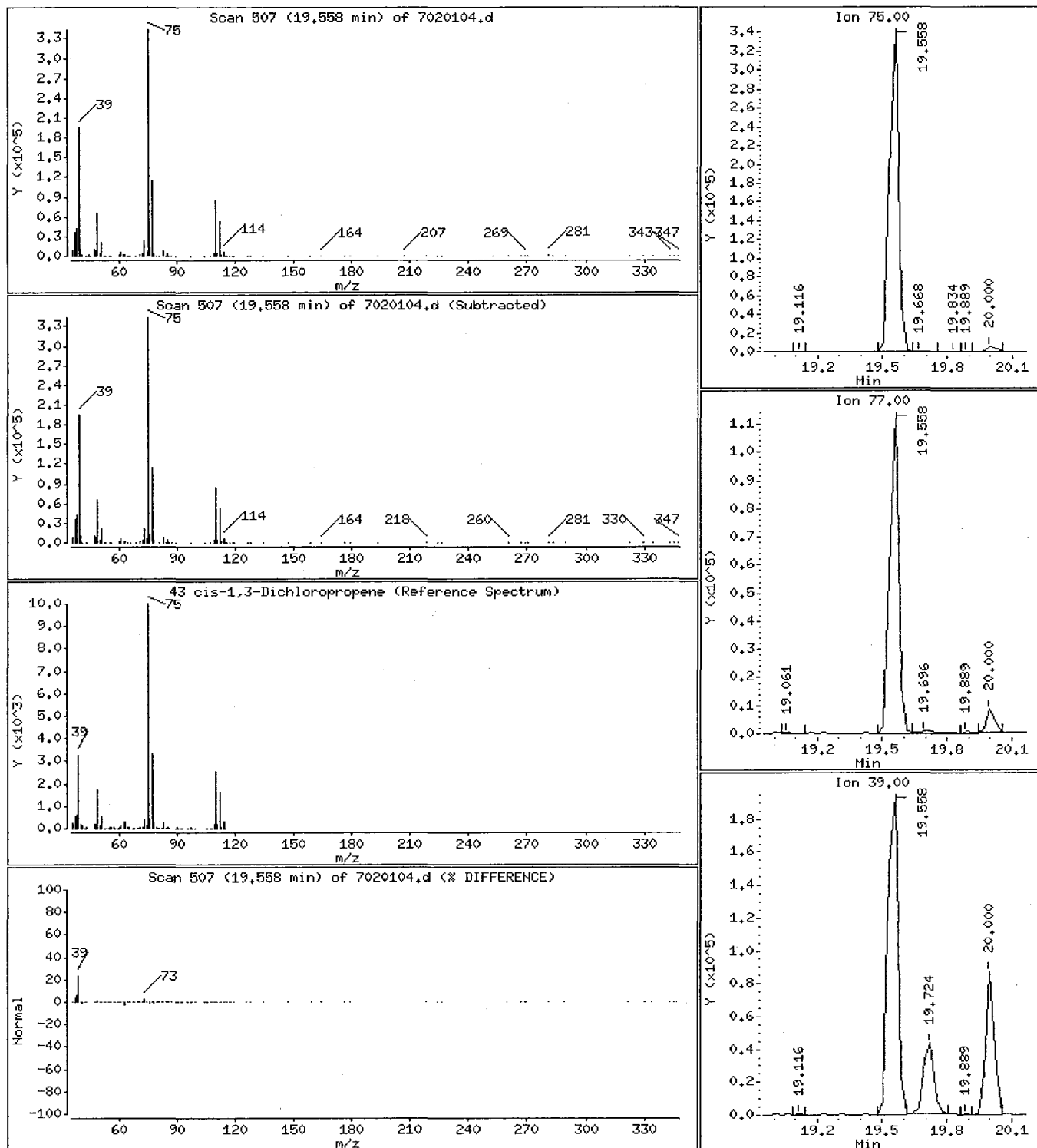
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

43 cis-1,3-Dichloropropene

Concentration: 5.750 PPBV



0699

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

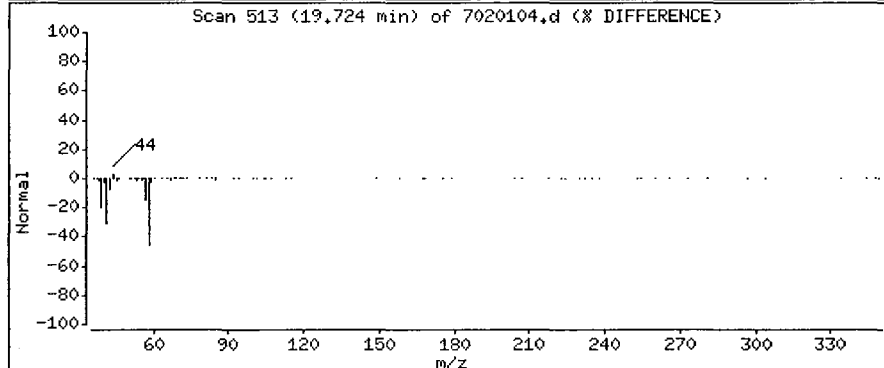
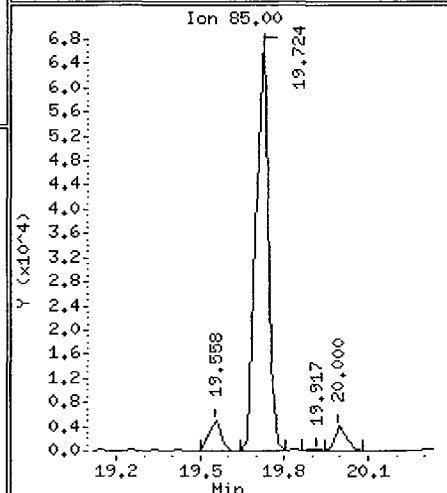
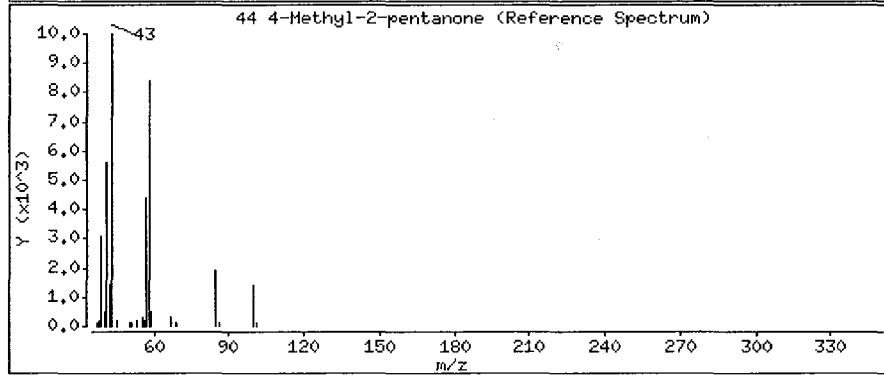
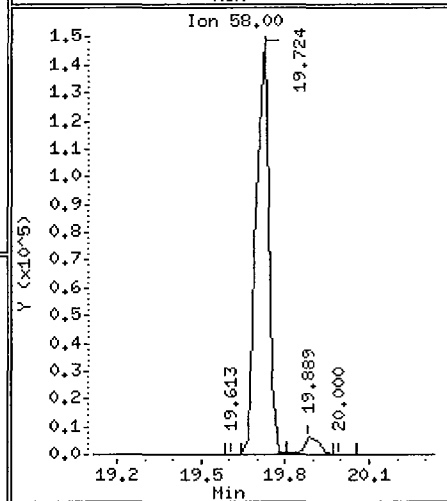
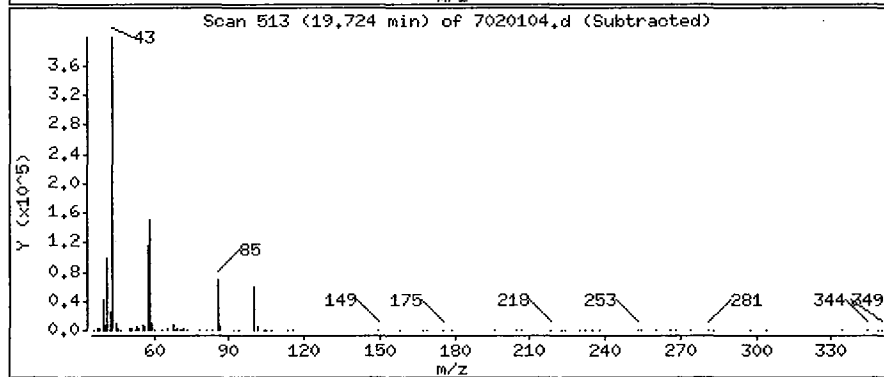
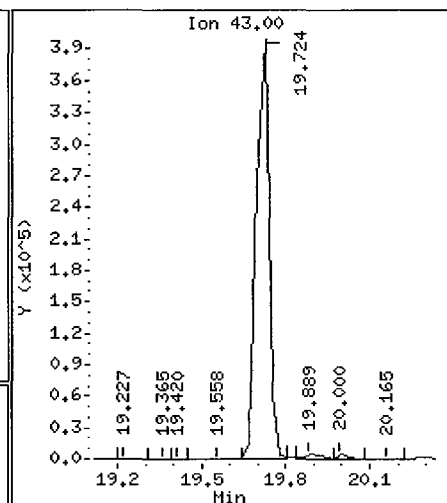
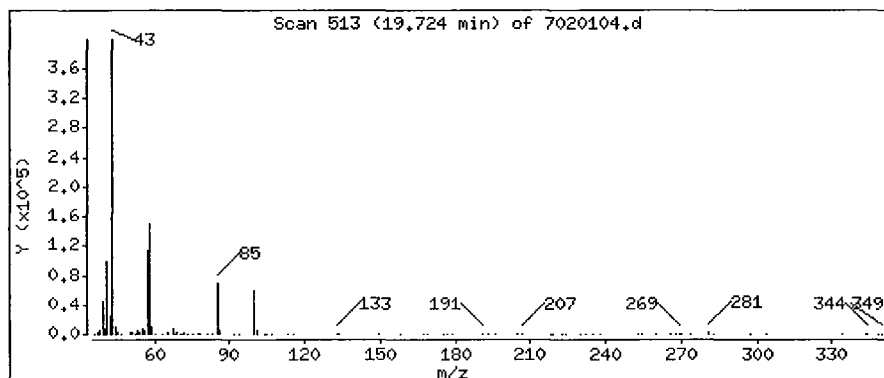
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

44 4-Methyl-2-pentanone

Concentration: 4.898 PPBV



0700

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

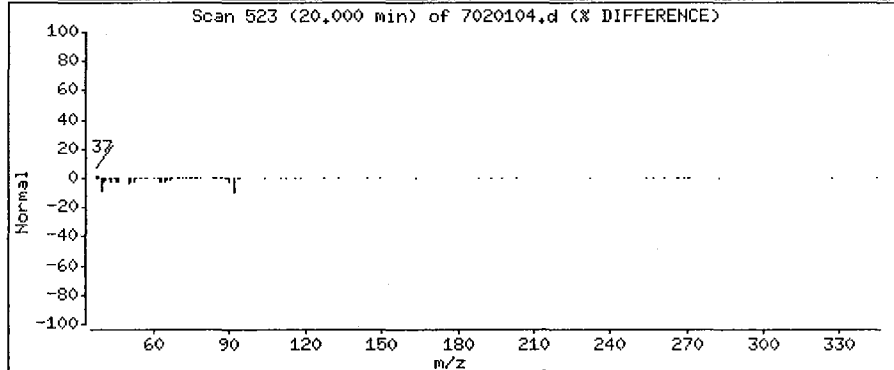
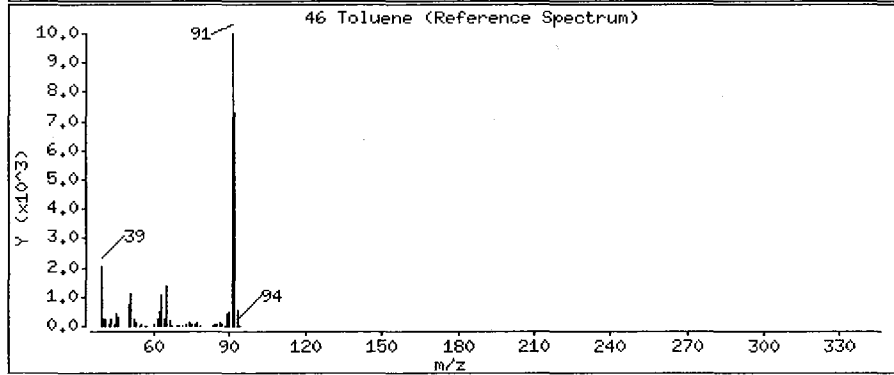
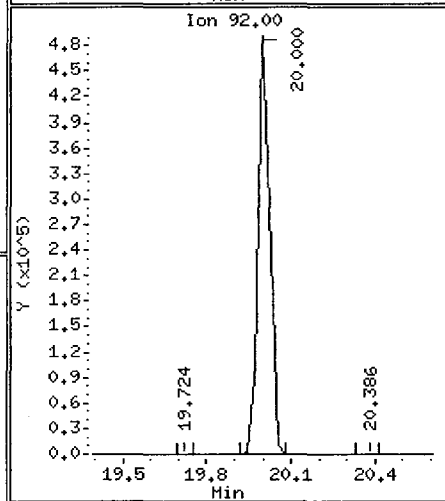
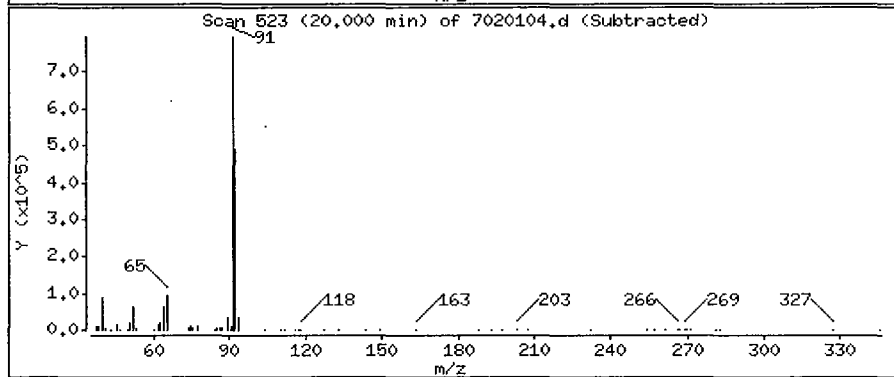
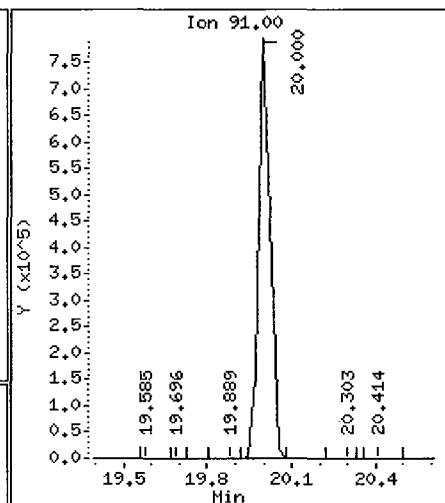
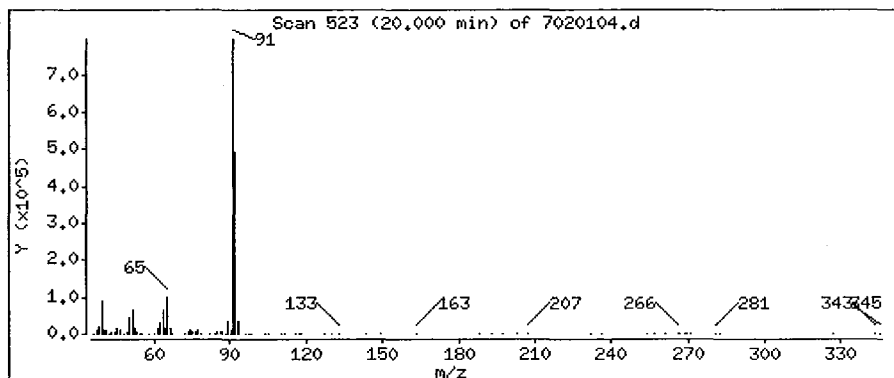
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 4,948 PPBV



0701

SCOEP00032373

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

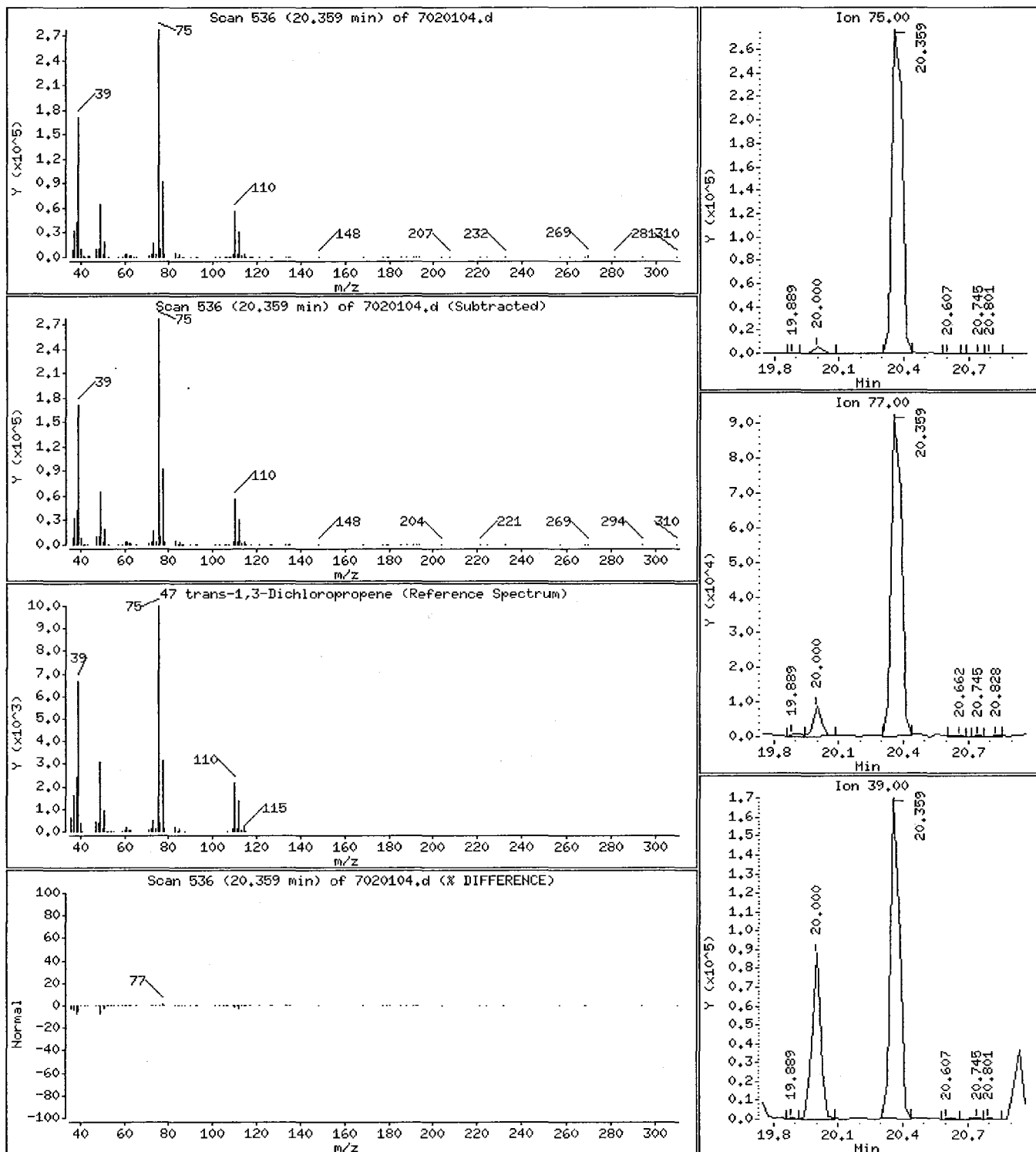
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

47 trans-1,3-Dichloropropene

Concentration: 5.454 PPBV



0702

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

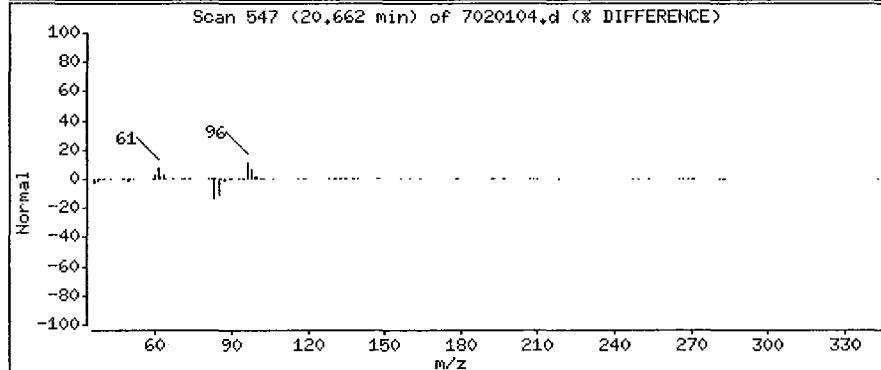
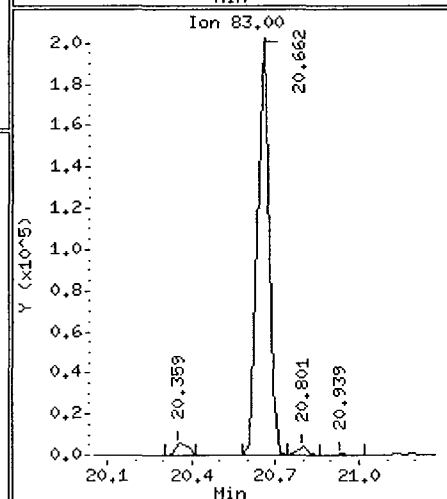
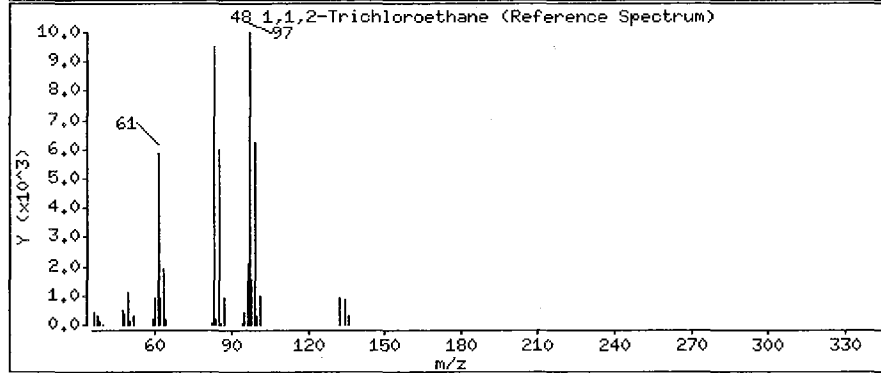
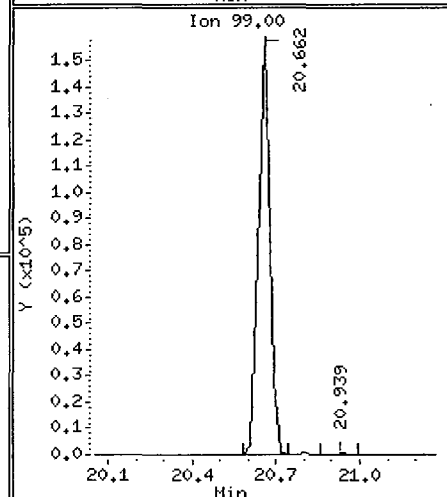
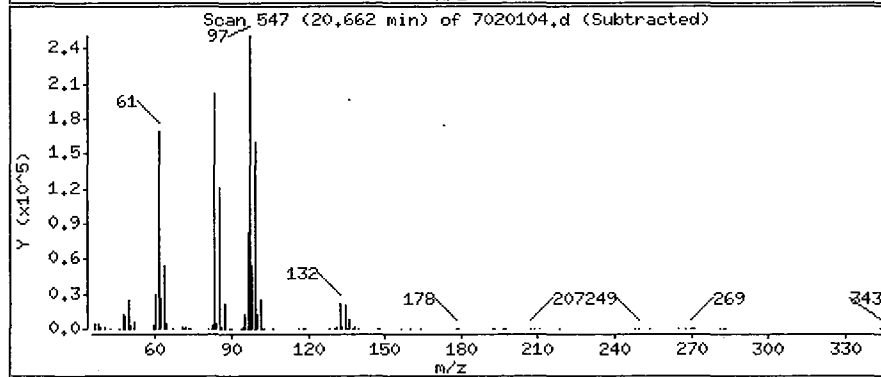
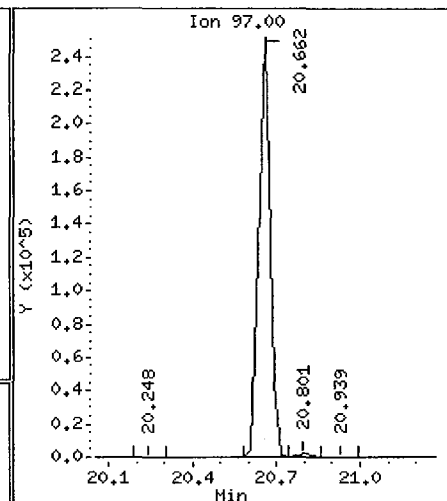
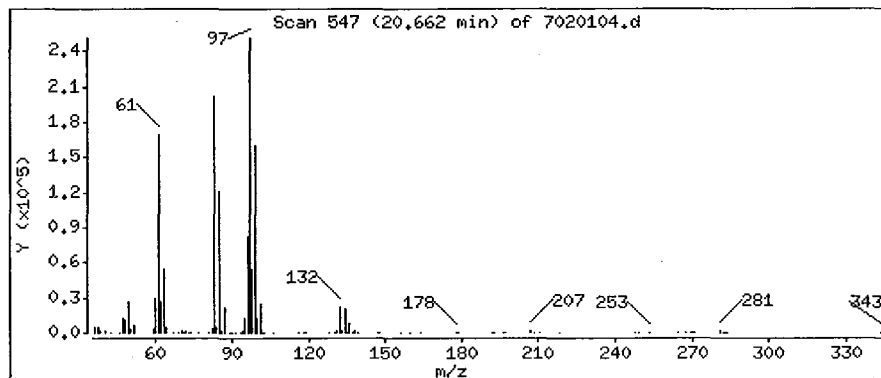
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

48 1,1,2-Trichloroethane

Concentration: 5.493 PPBV



0703

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

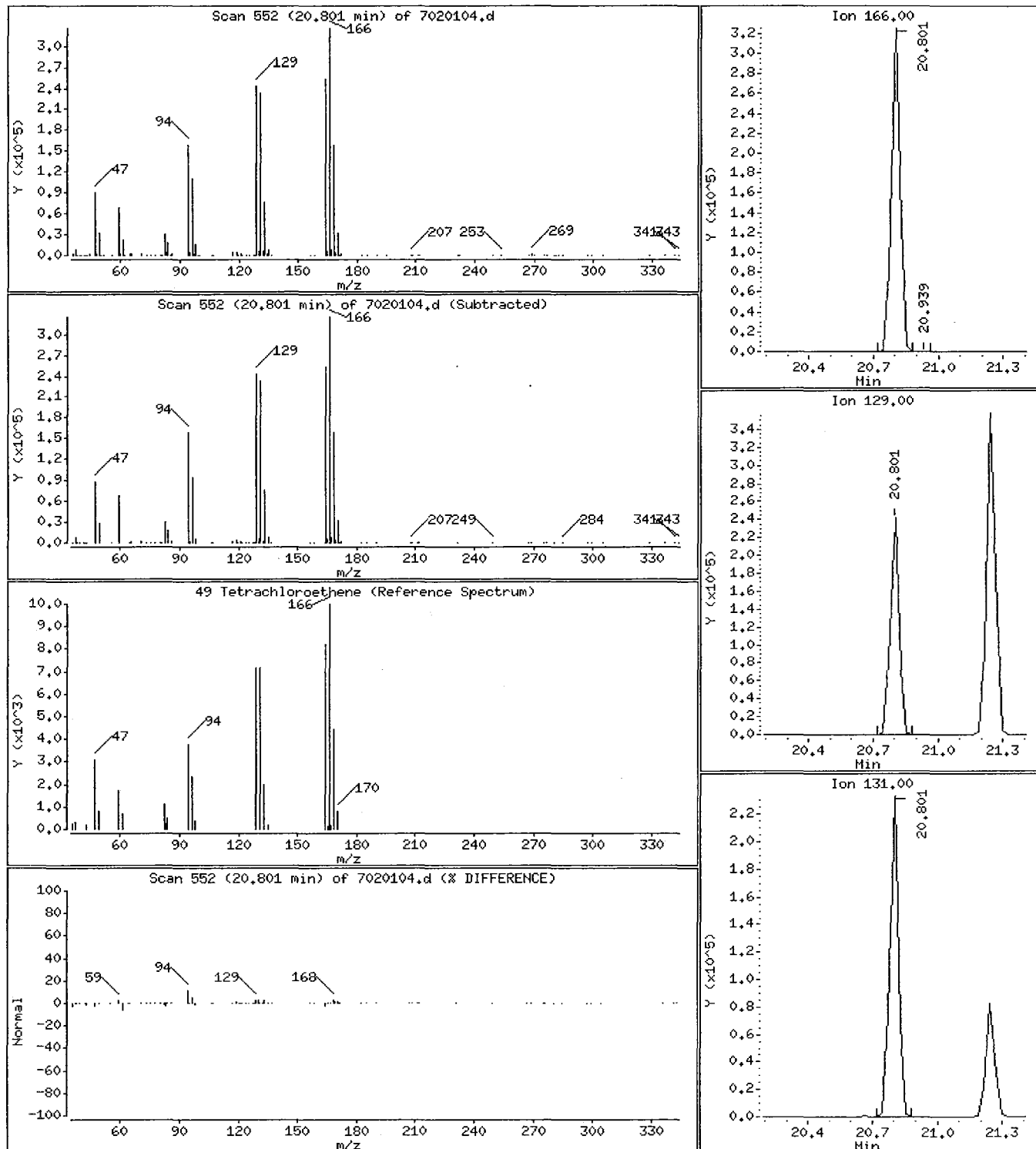
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

49 Tetrachloroethene

Concentration: 5,380 PPBV



0704

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

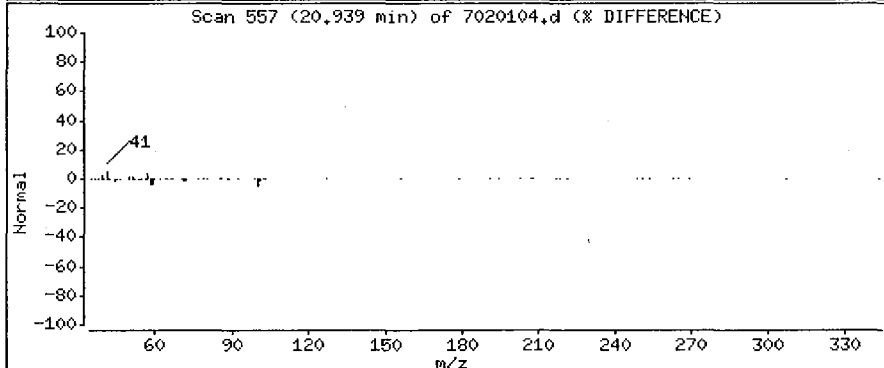
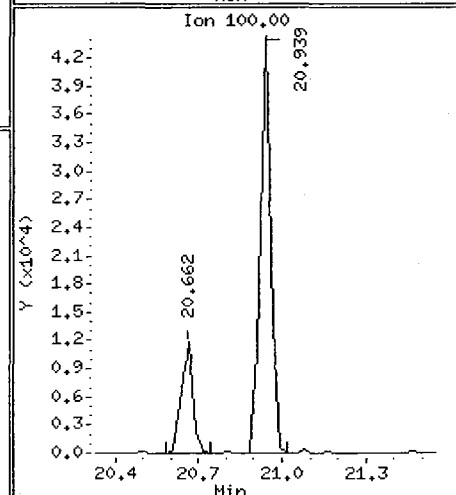
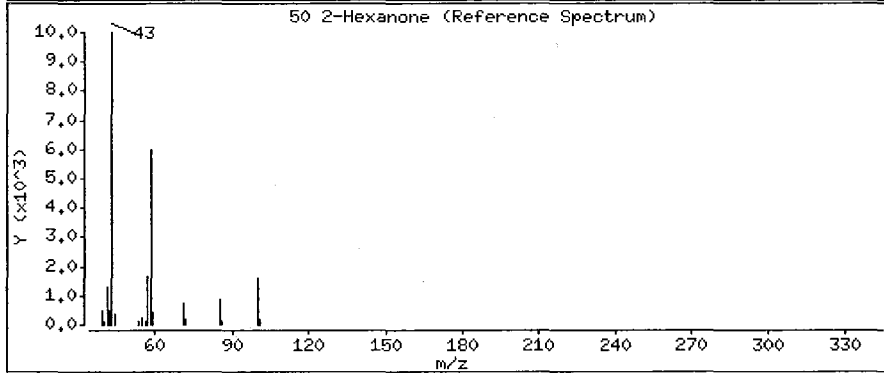
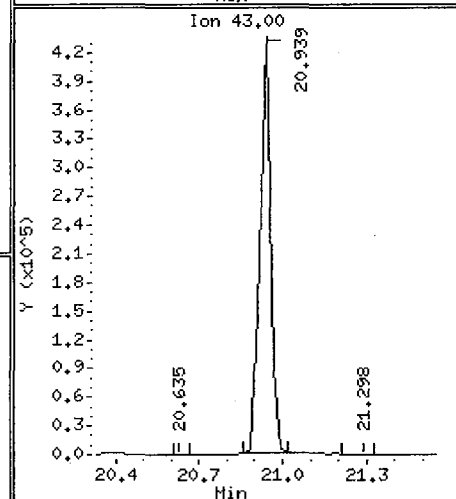
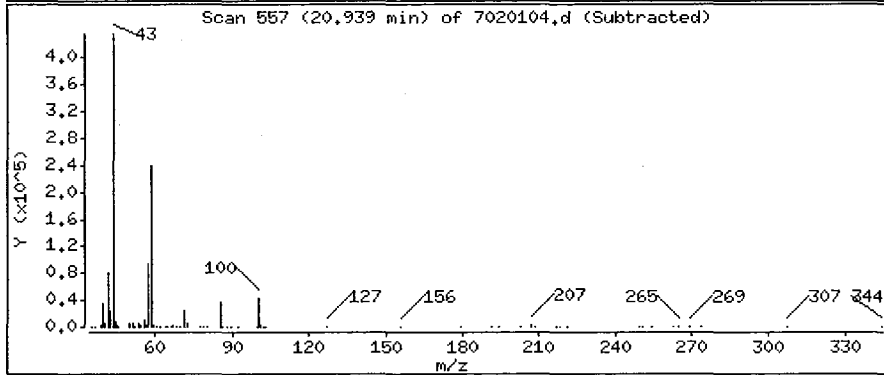
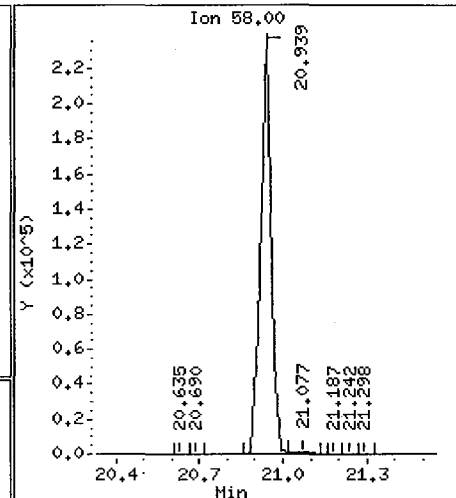
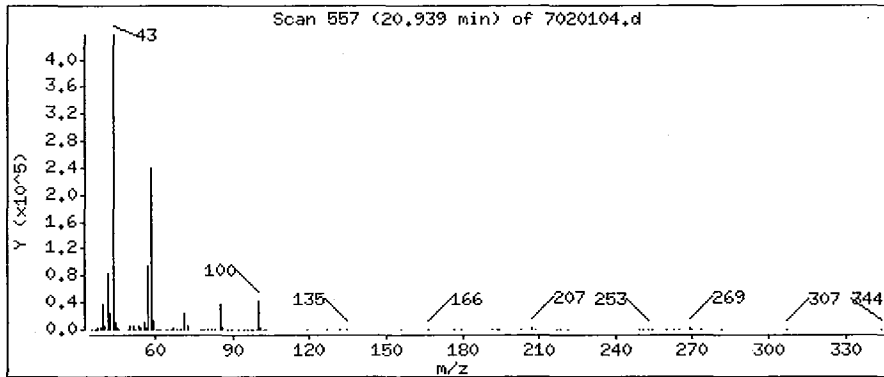
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

50 2-Hexanone

Concentration: 4,834 PPBV



0705

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

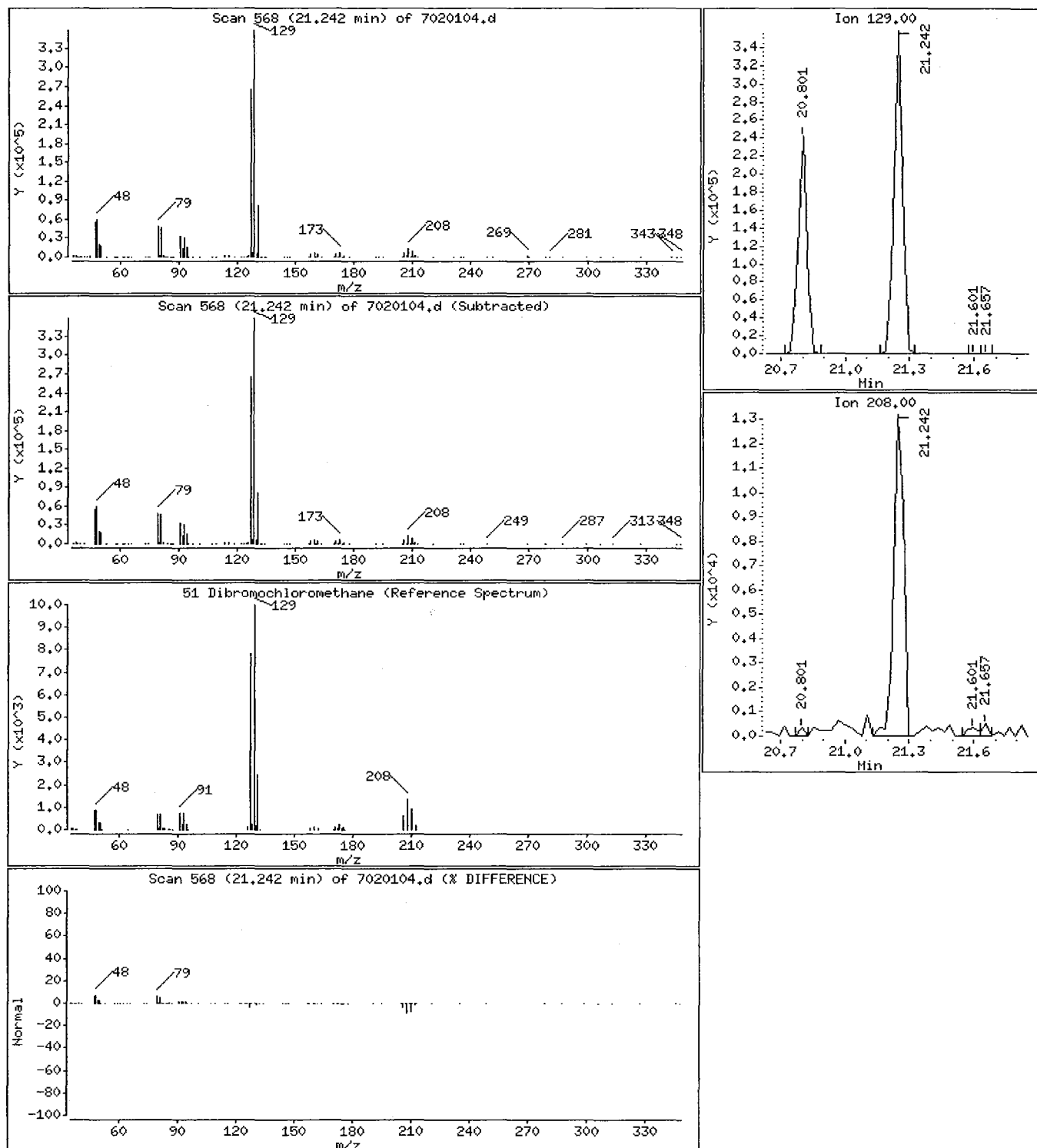
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

51 Dibromochloromethane

Concentration: 5.456 PPBV



0706

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

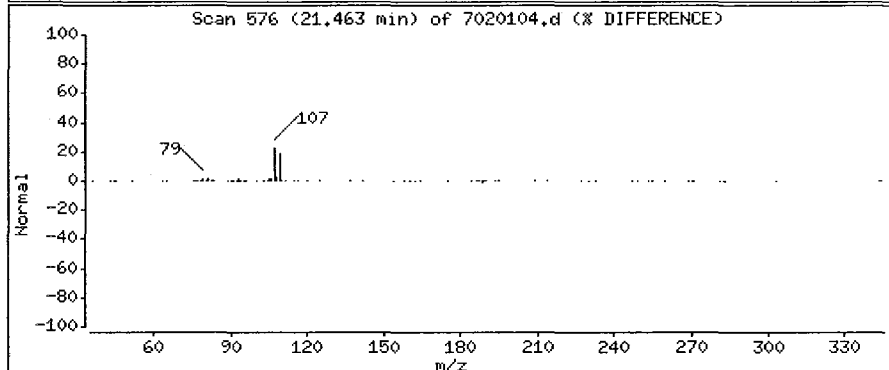
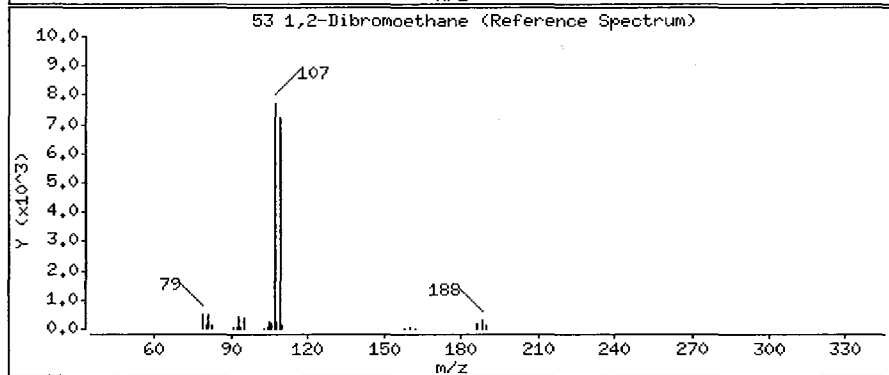
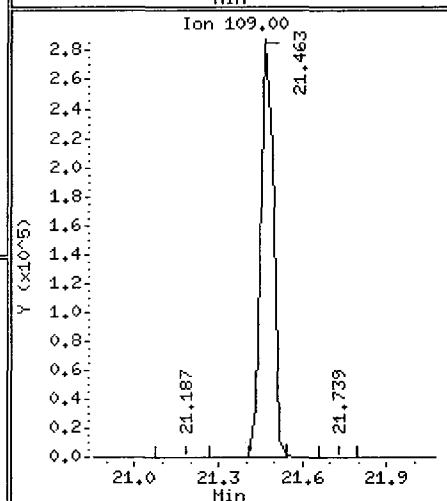
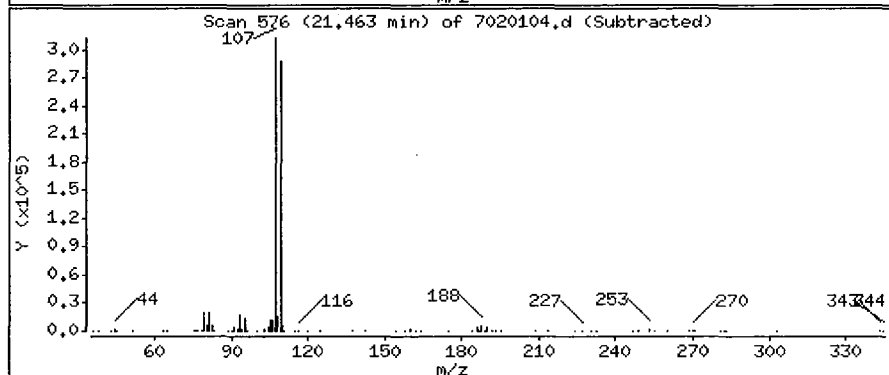
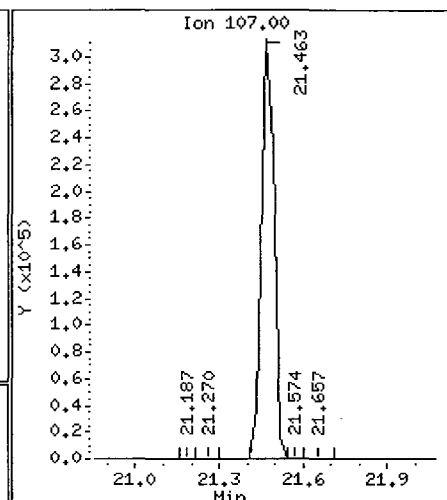
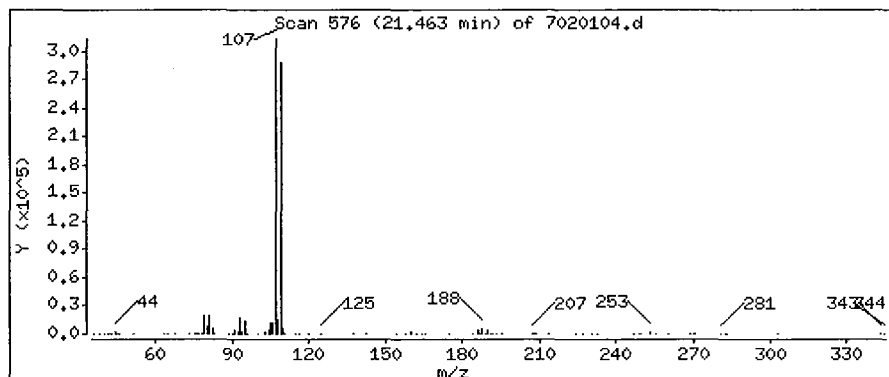
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

53 1,2-Dibromoethane

Concentration: 5.629 PPBV



0707

SCOEPAA00032379

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

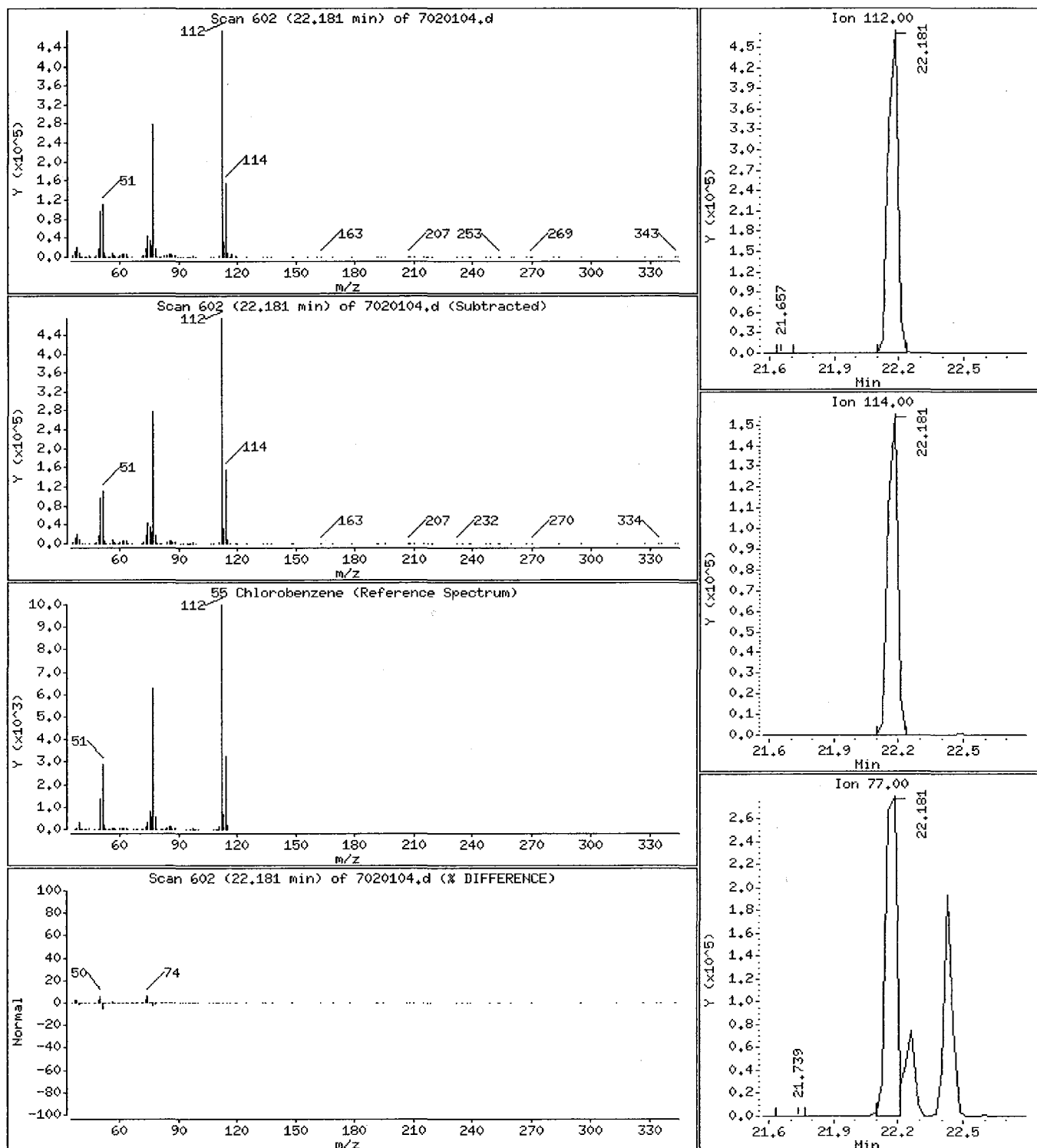
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

55 Chlorobenzene

Concentration: 5.277 PPBV



0708

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

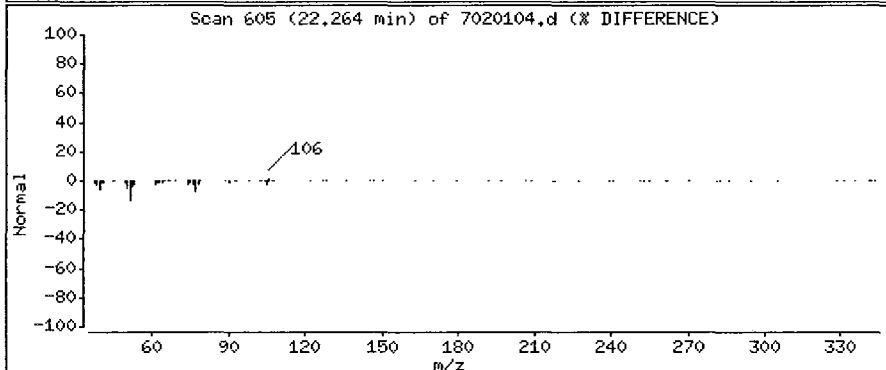
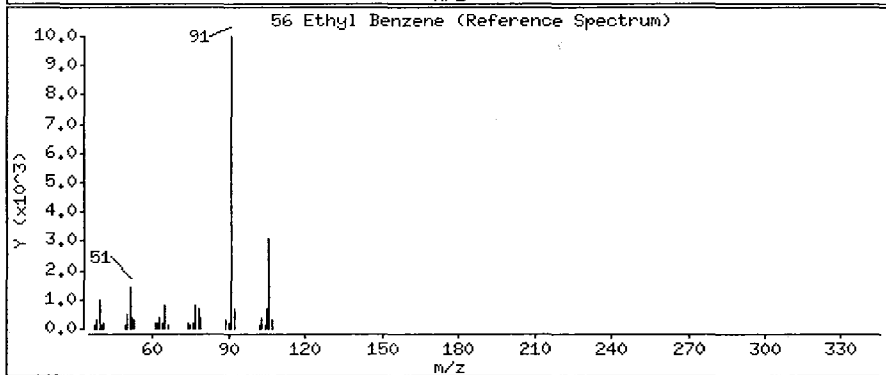
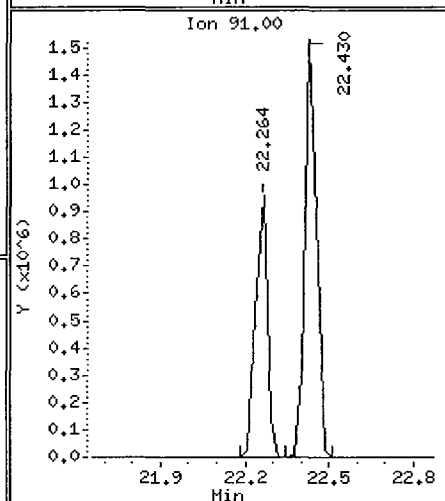
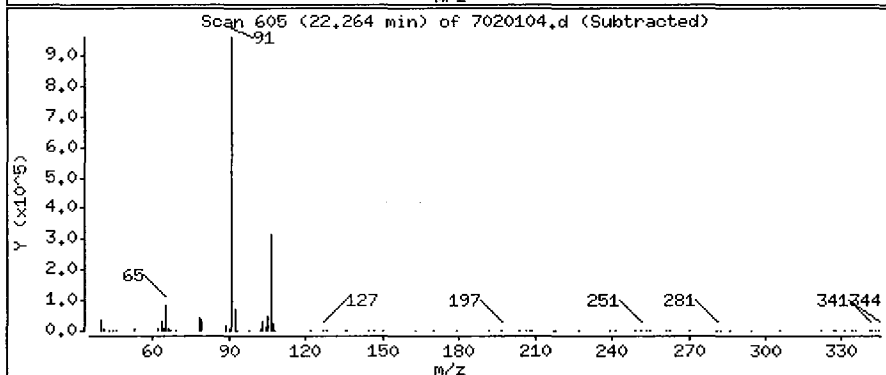
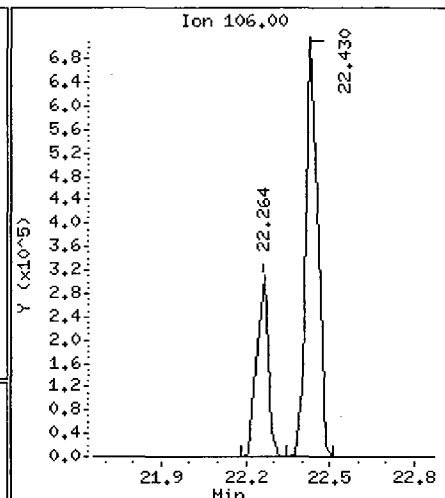
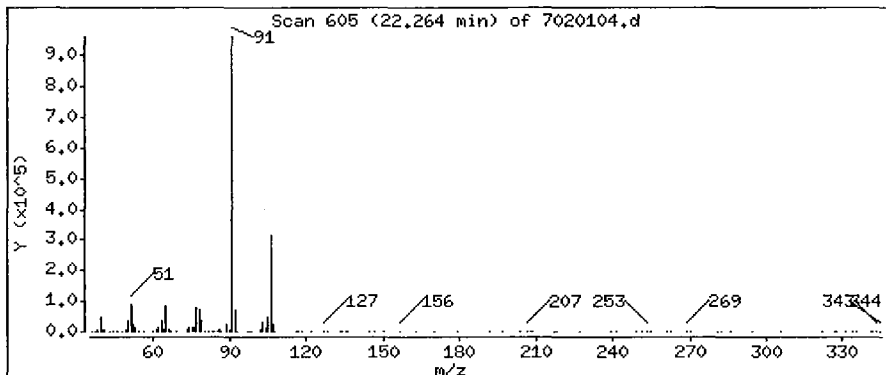
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 5.434 PPBV



0709

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

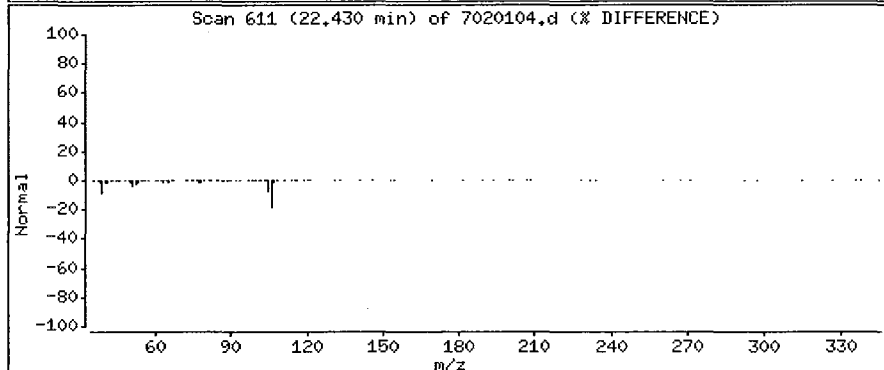
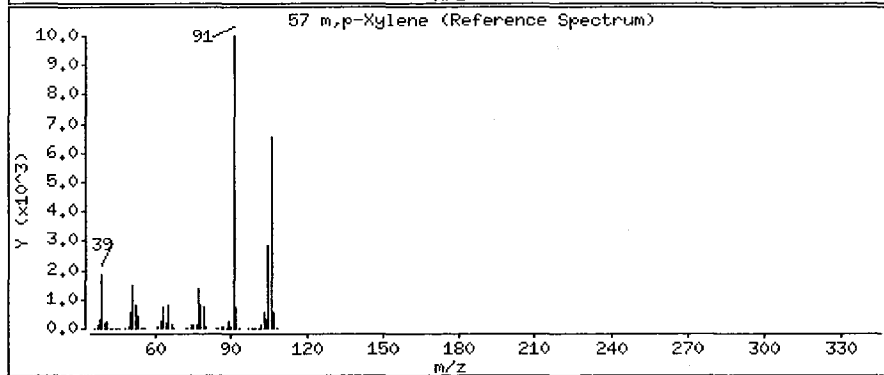
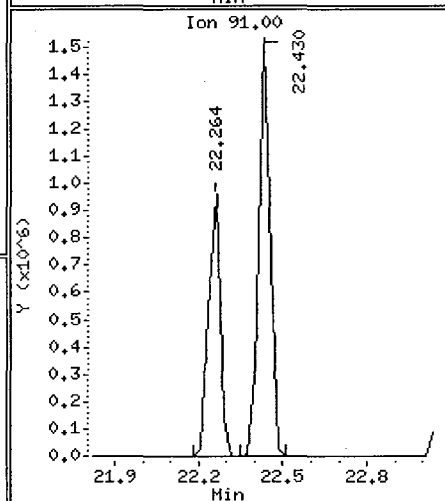
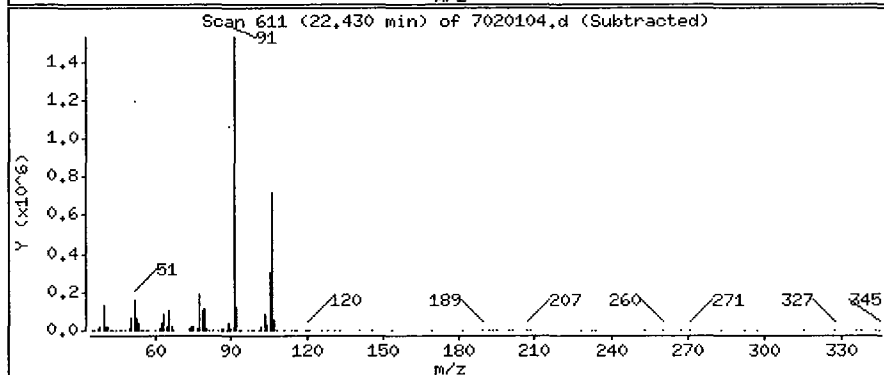
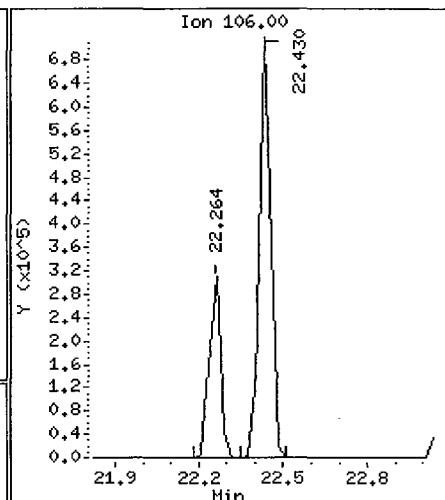
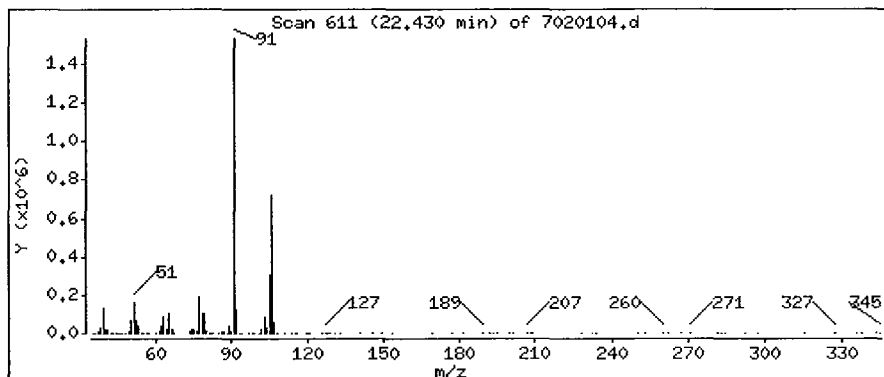
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 10.413 PPBV



0710

SCOEP00032382

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

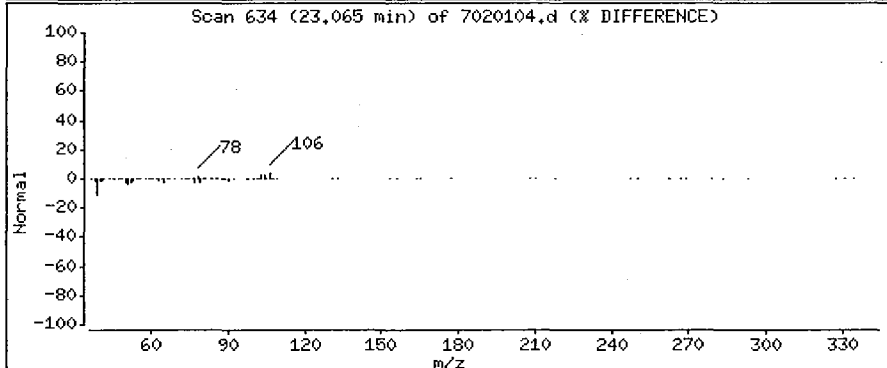
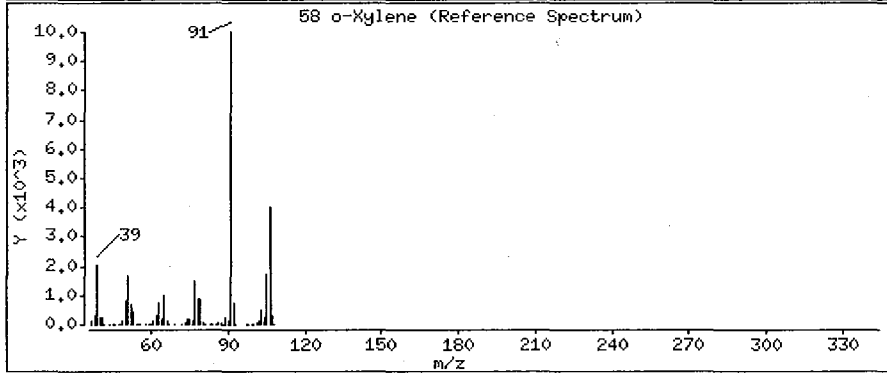
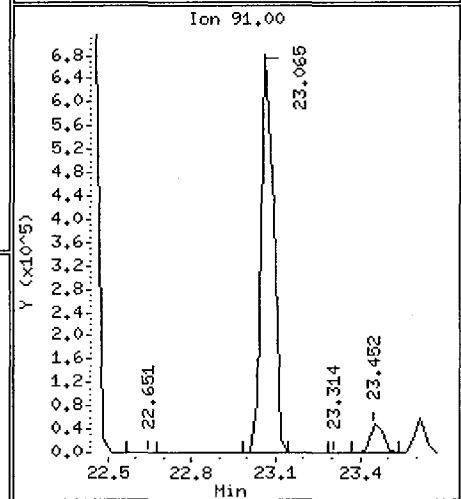
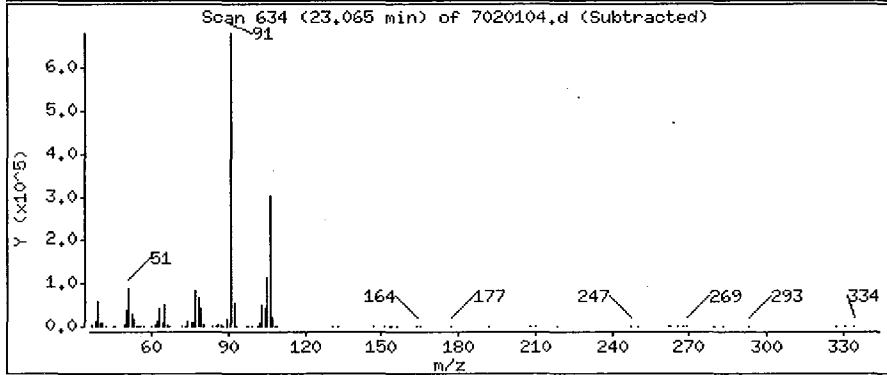
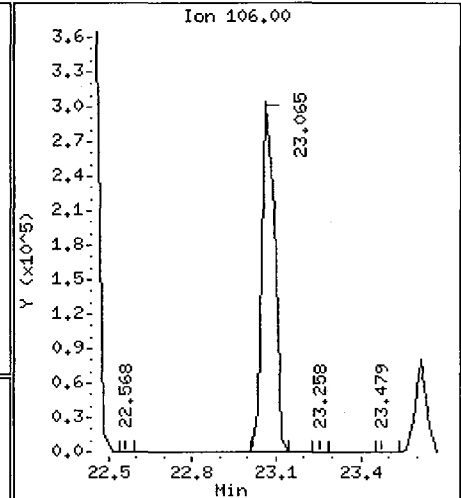
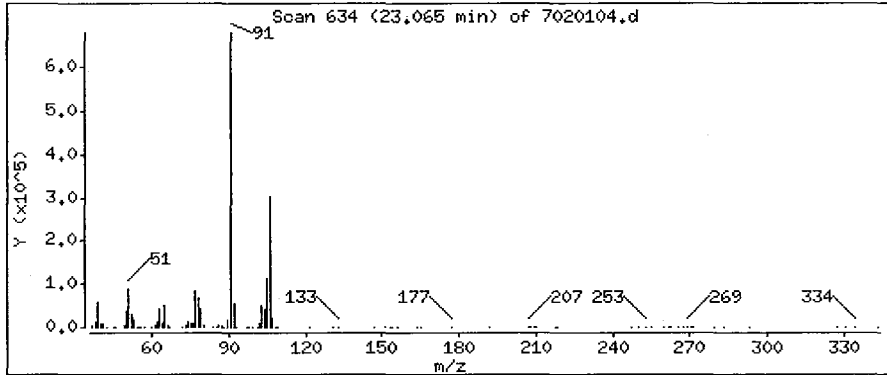
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 5.865 PPBV



0711

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

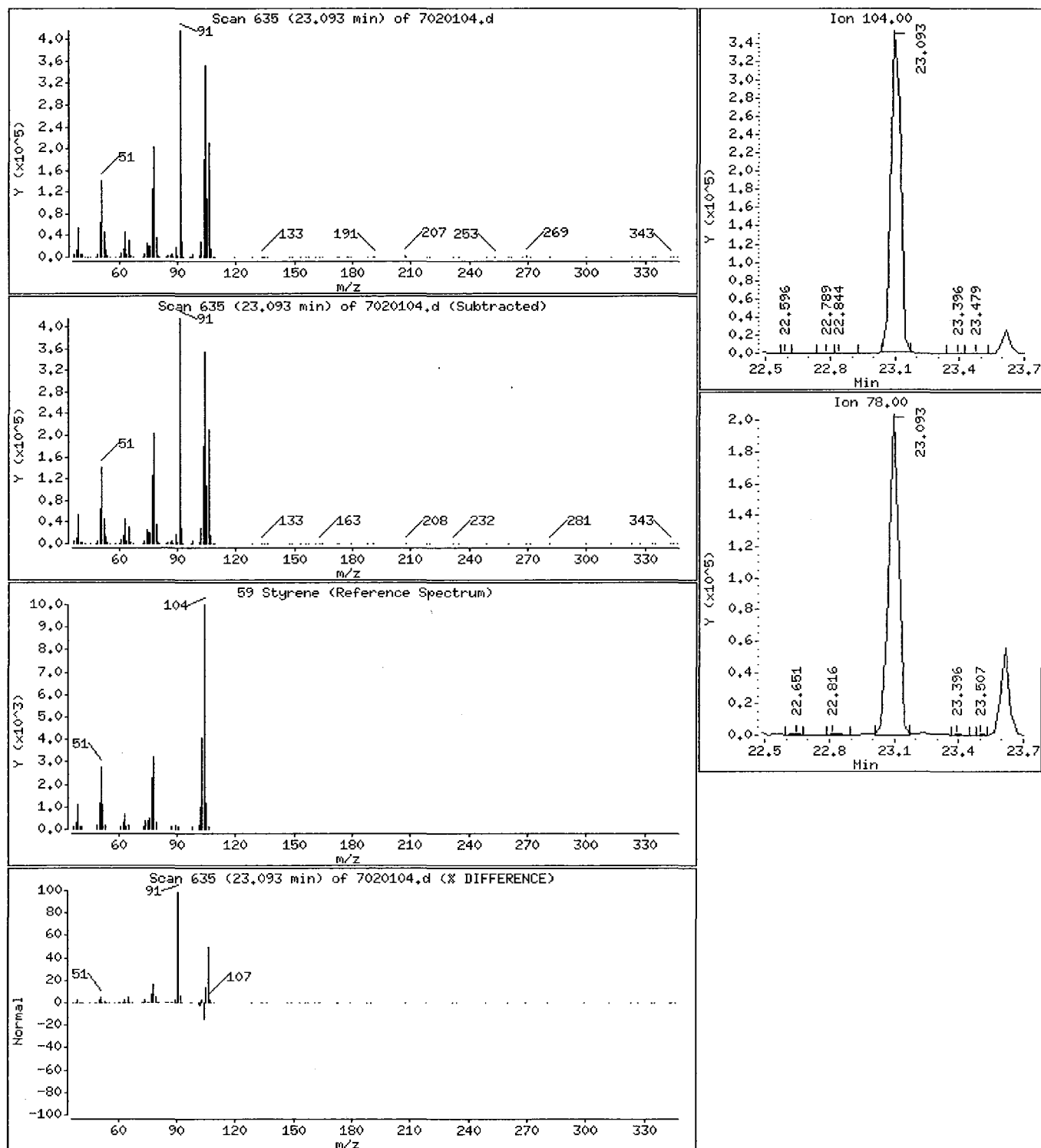
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

59 Styrene

Concentration: 4,570 PPBV



0712

SCOEPAA00032384

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

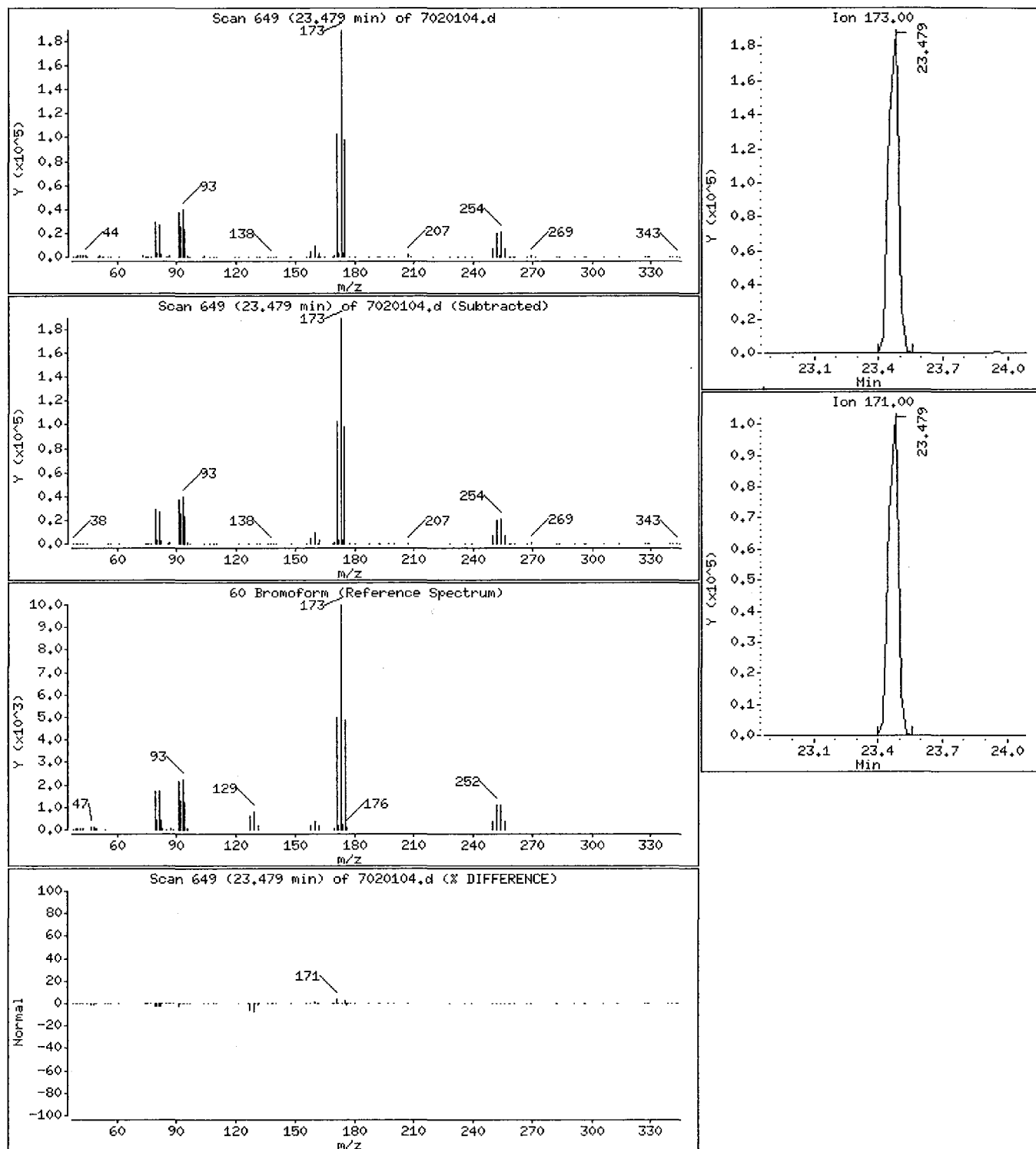
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

60 Bromoform

Concentration: 4.615 PPBV



0713

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

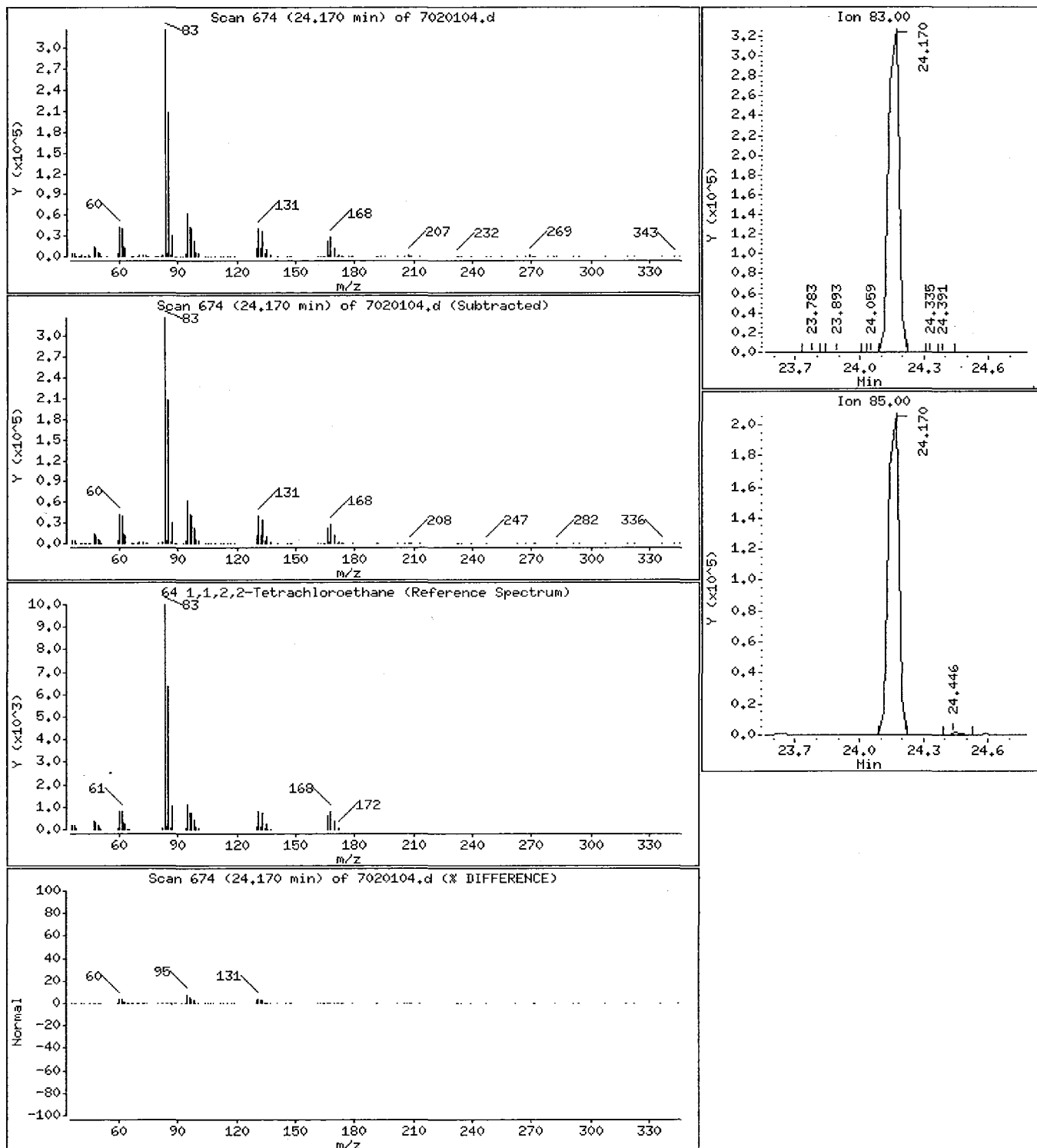
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

64 1,1,2,2-Tetrachloroethane

Concentration: 5.811 PPBV



0714

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

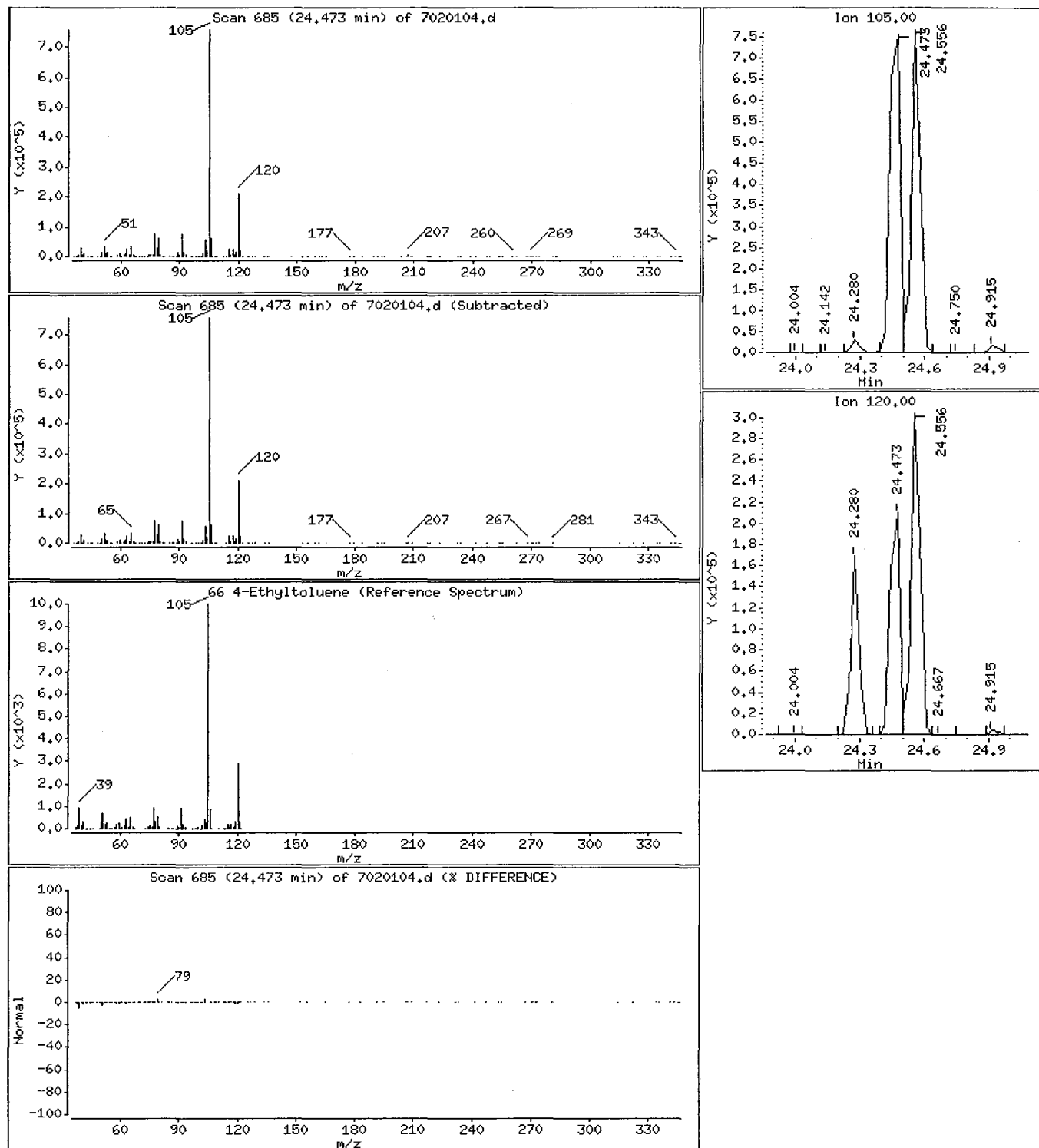
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 5,978 PPBV



0715

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

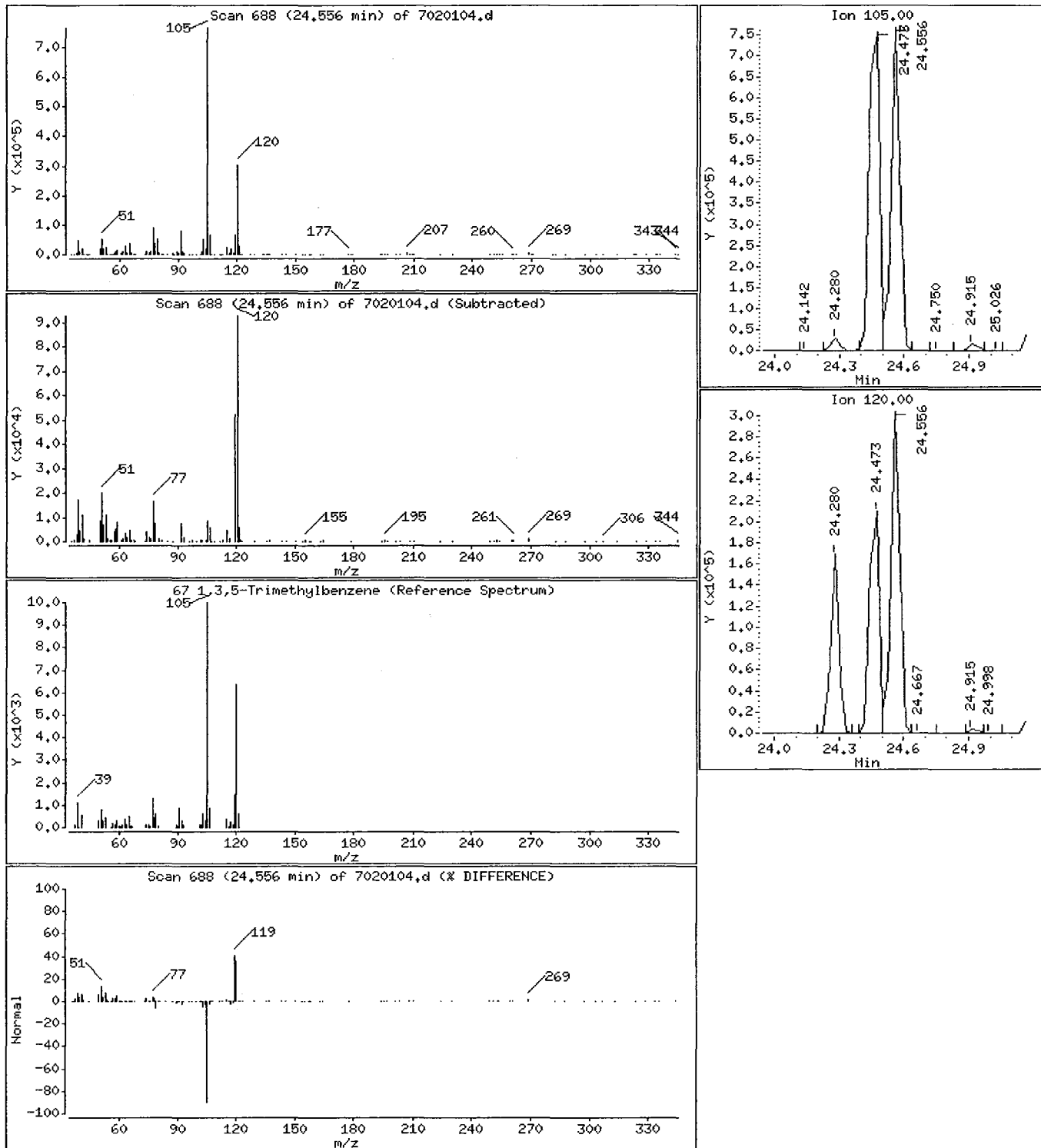
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 5.875 PPBV



0716

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

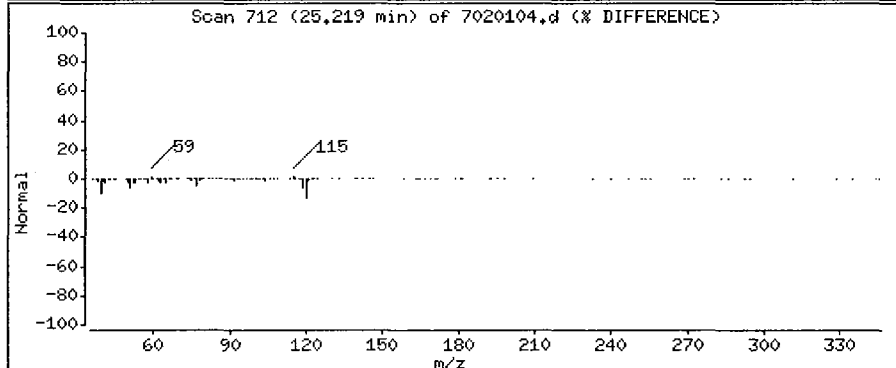
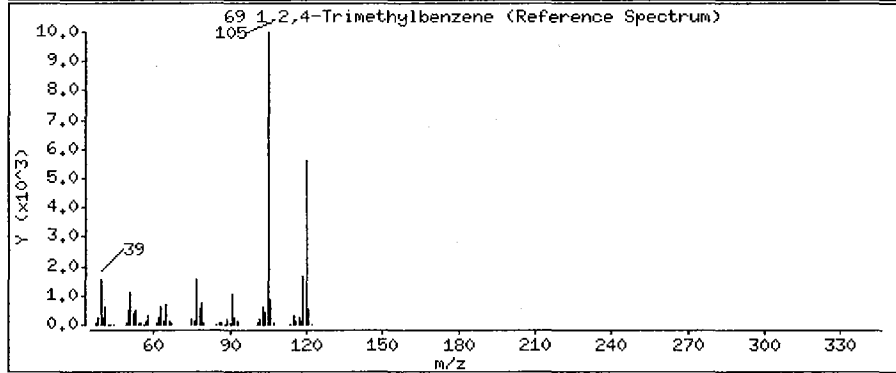
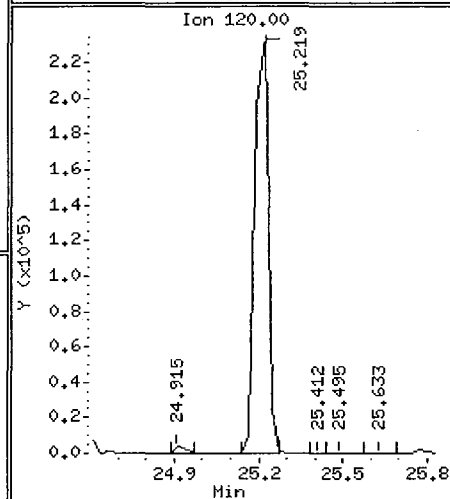
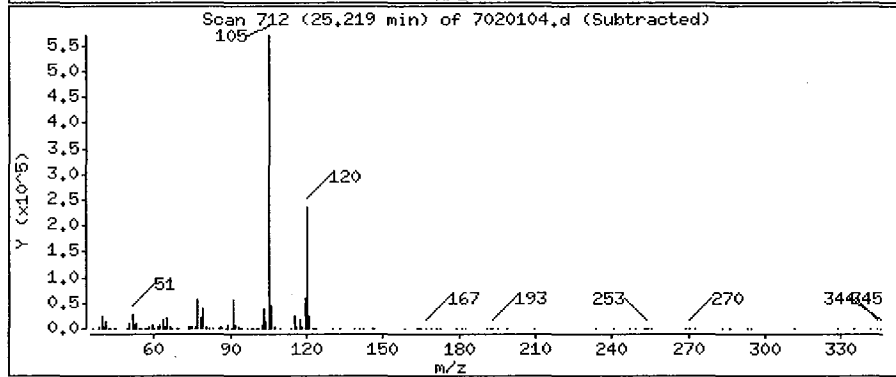
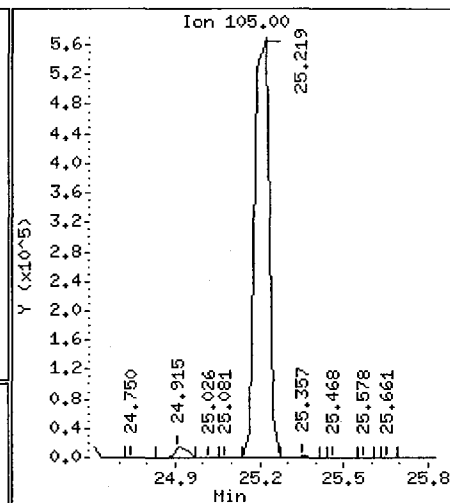
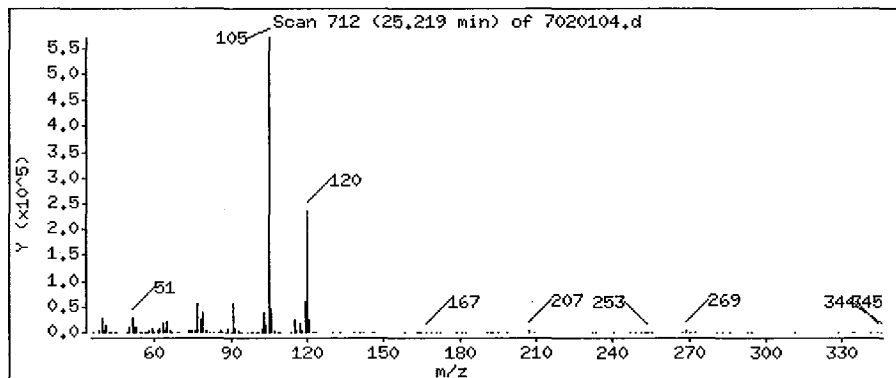
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 5.516 PPBV



0717

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

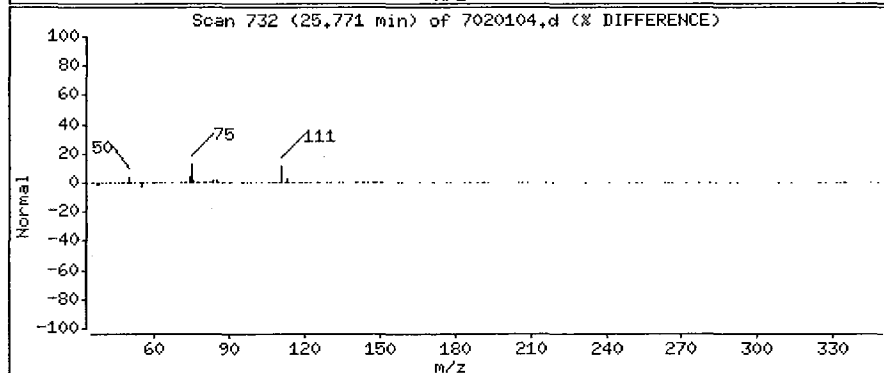
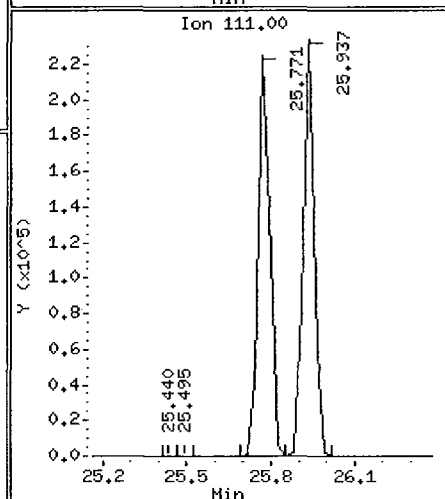
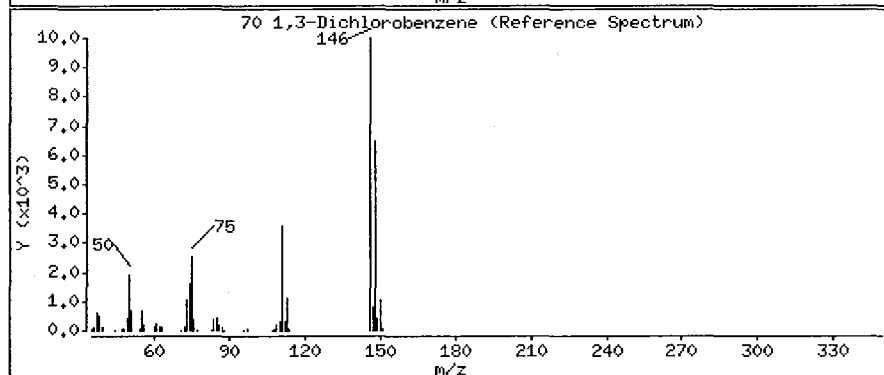
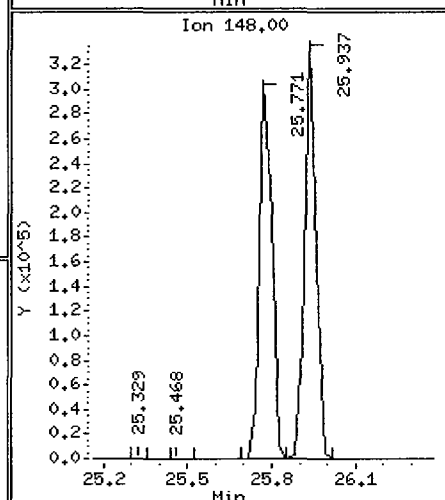
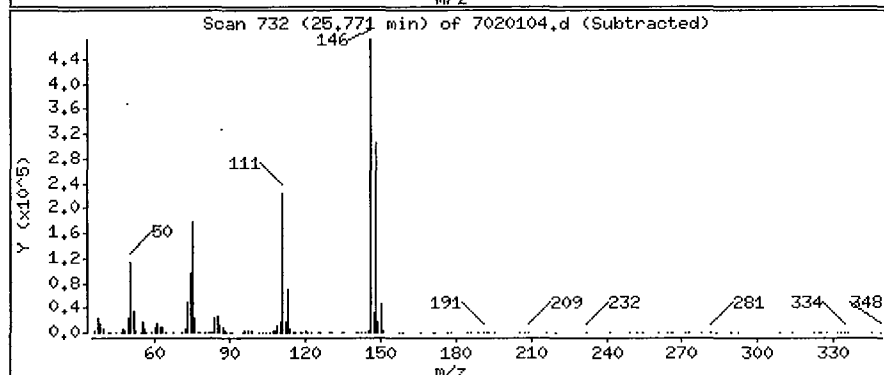
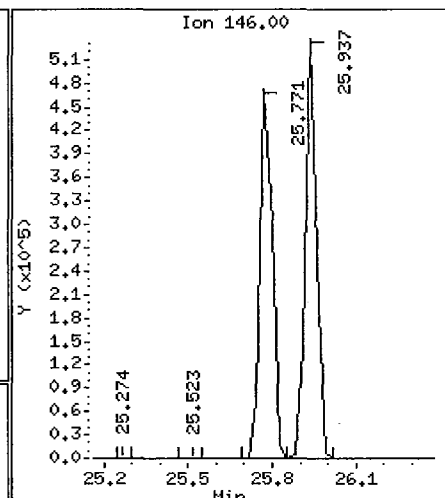
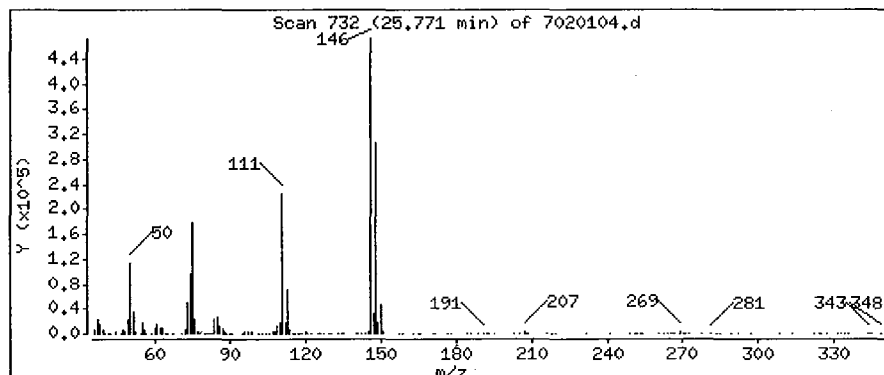
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

70 1,3-Dichlorobenzene

Concentration: 5.575 PPBV



0718

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

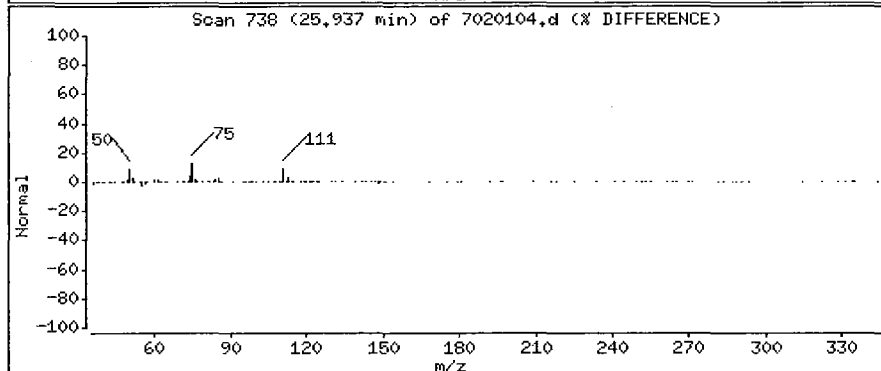
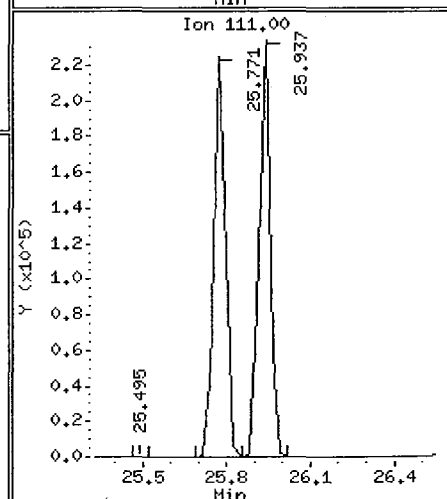
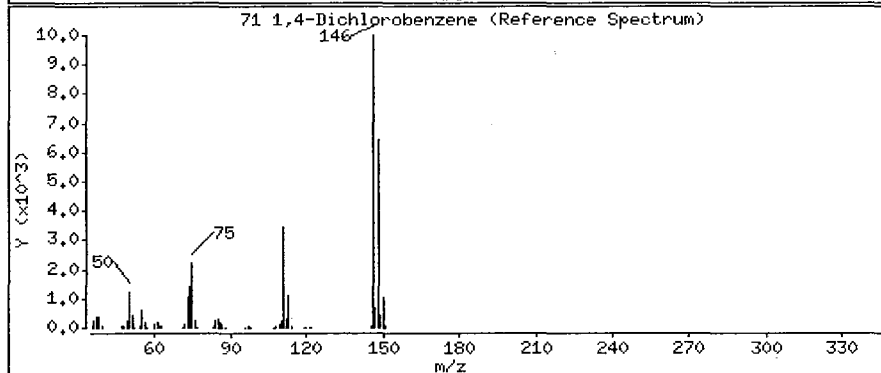
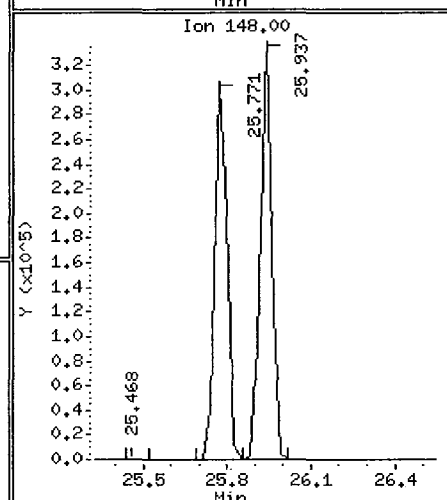
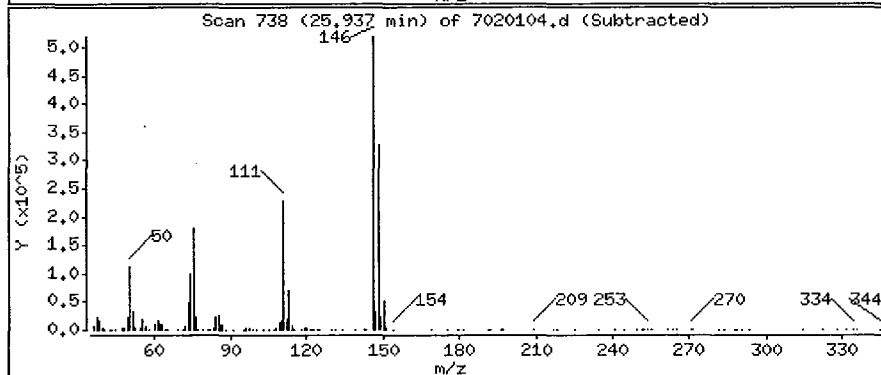
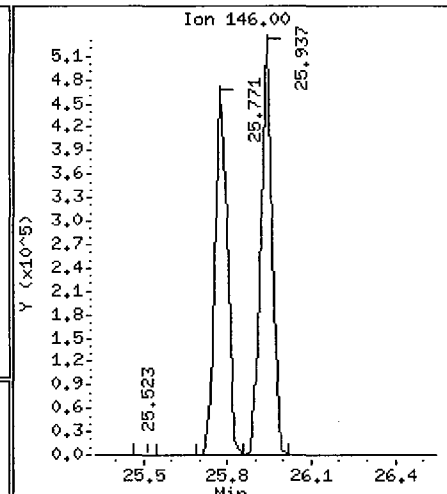
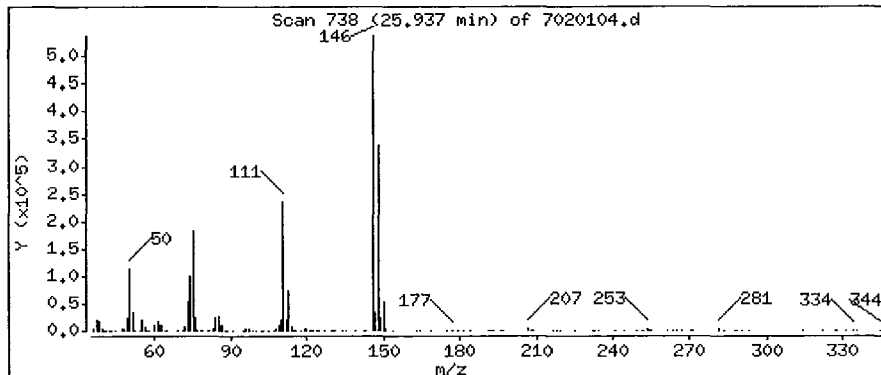
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

71 1,4-Dichlorobenzene

Concentration: 5.452 PPBV



0719

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

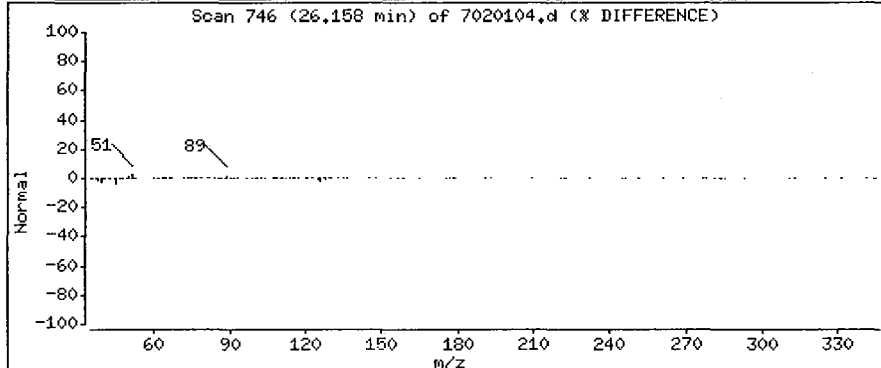
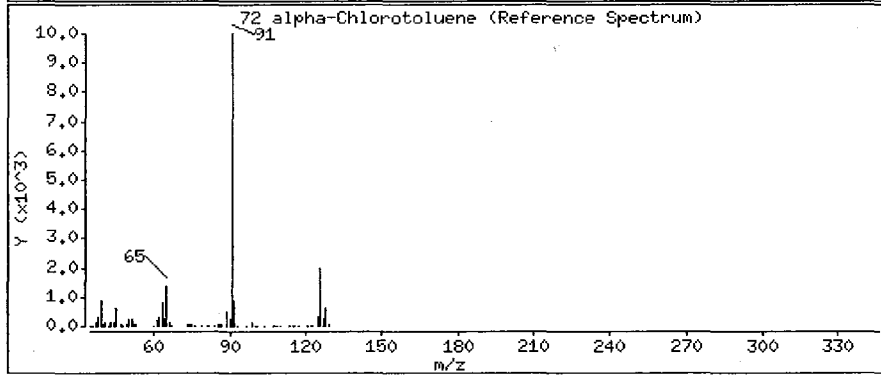
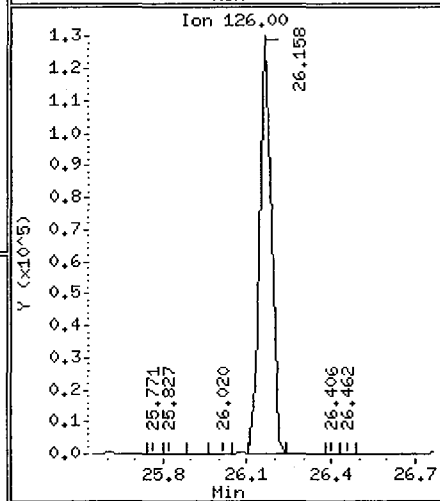
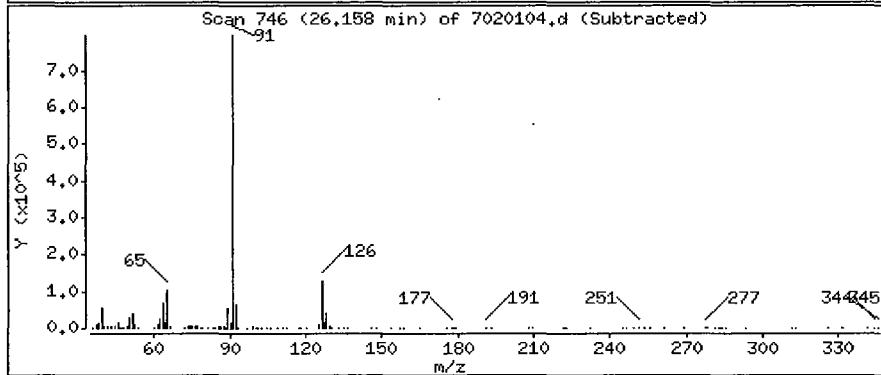
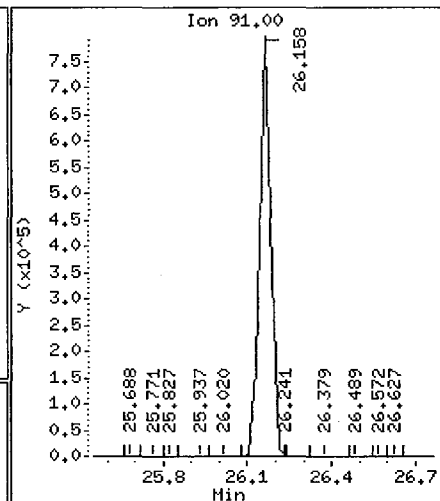
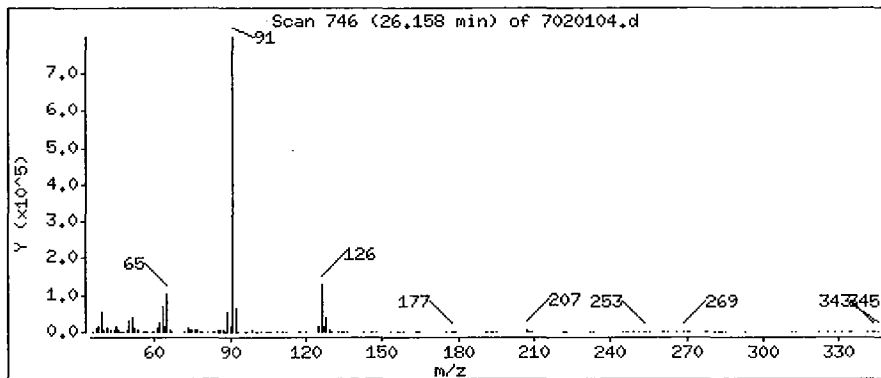
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

72 alpha-Chlorotoluene

Concentration: 7.288 PPBV



0720

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

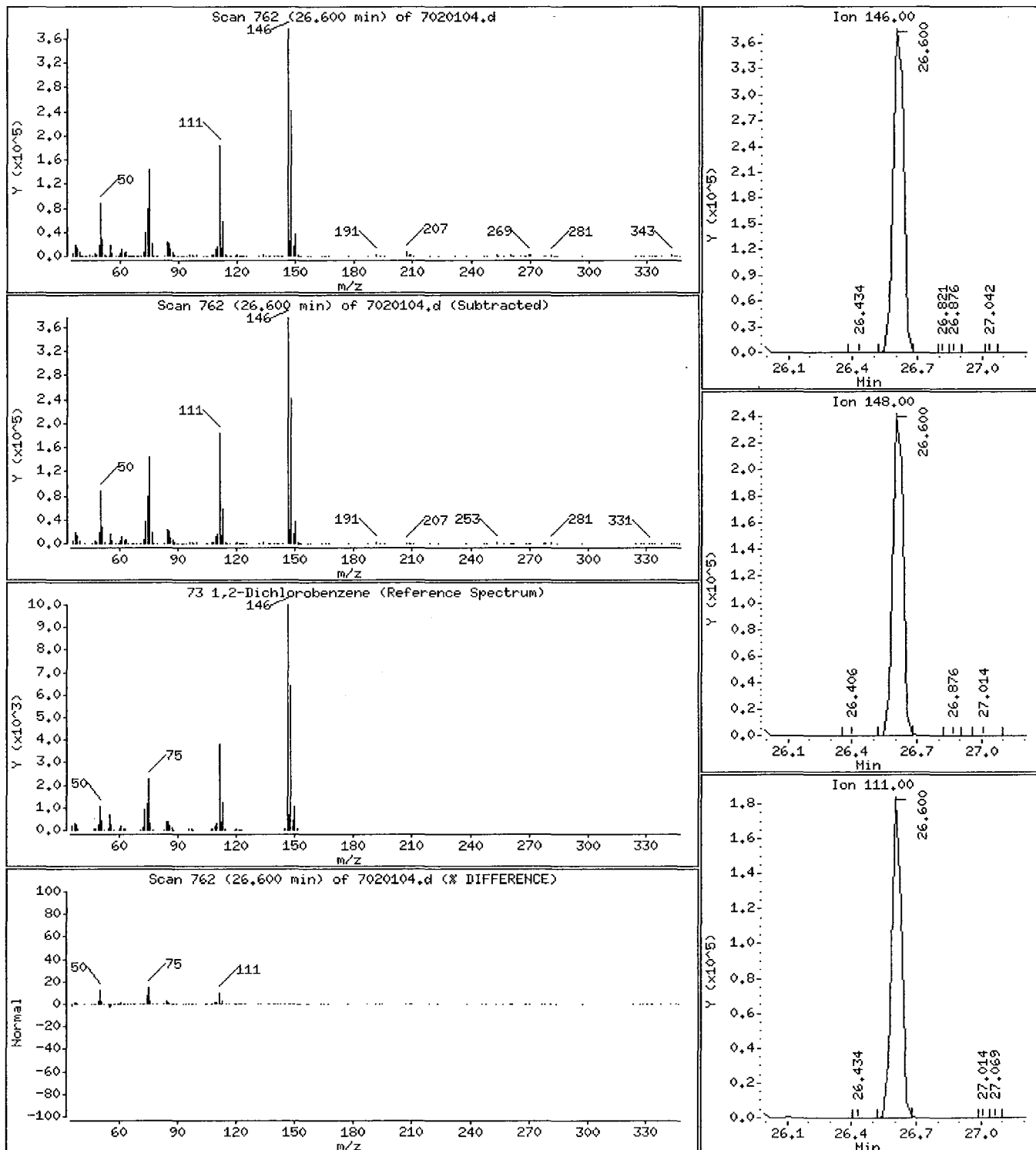
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

73 1,2-Dichlorobenzene

Concentration: 5.636 PPBV



0721

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

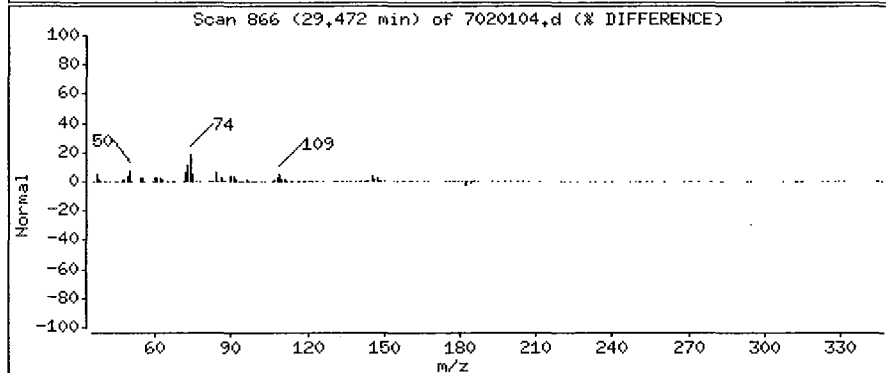
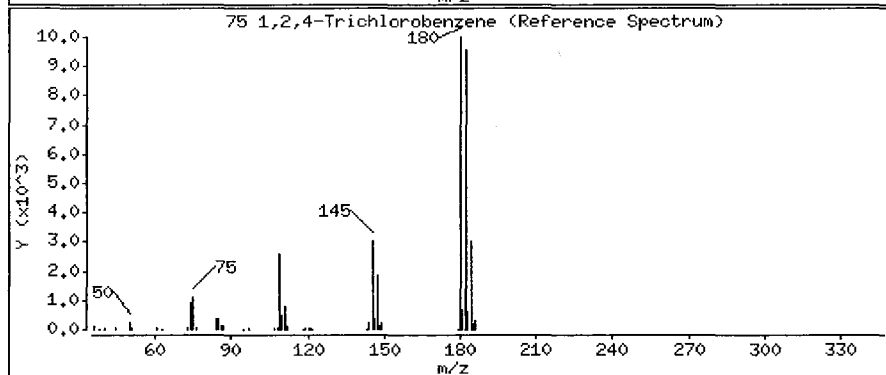
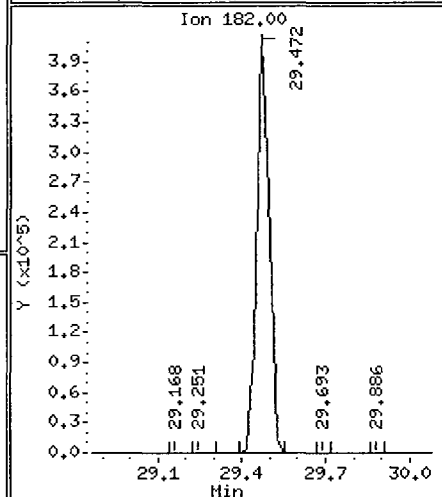
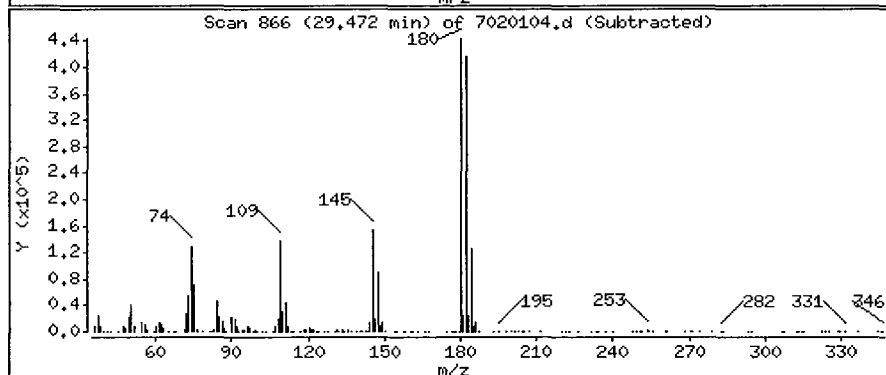
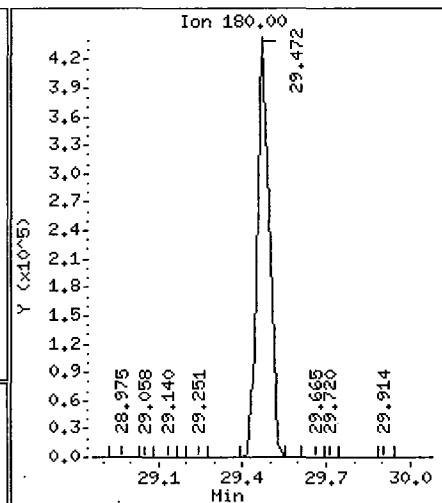
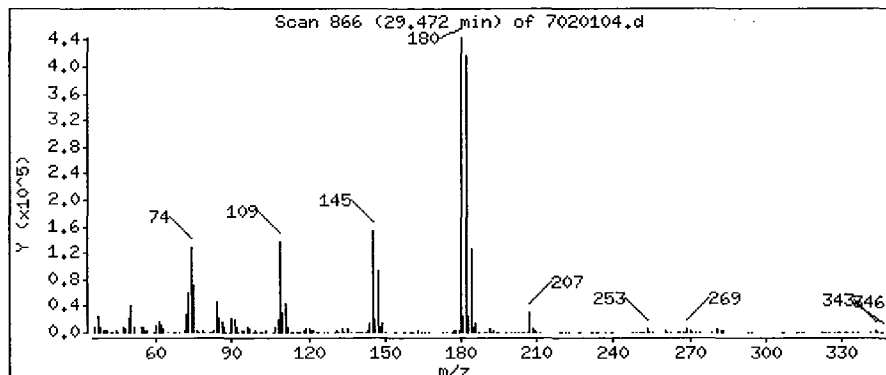
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

75 1,2,4-Trichlorobenzene

Concentration: 6.778 PPBV



0722

Date: 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

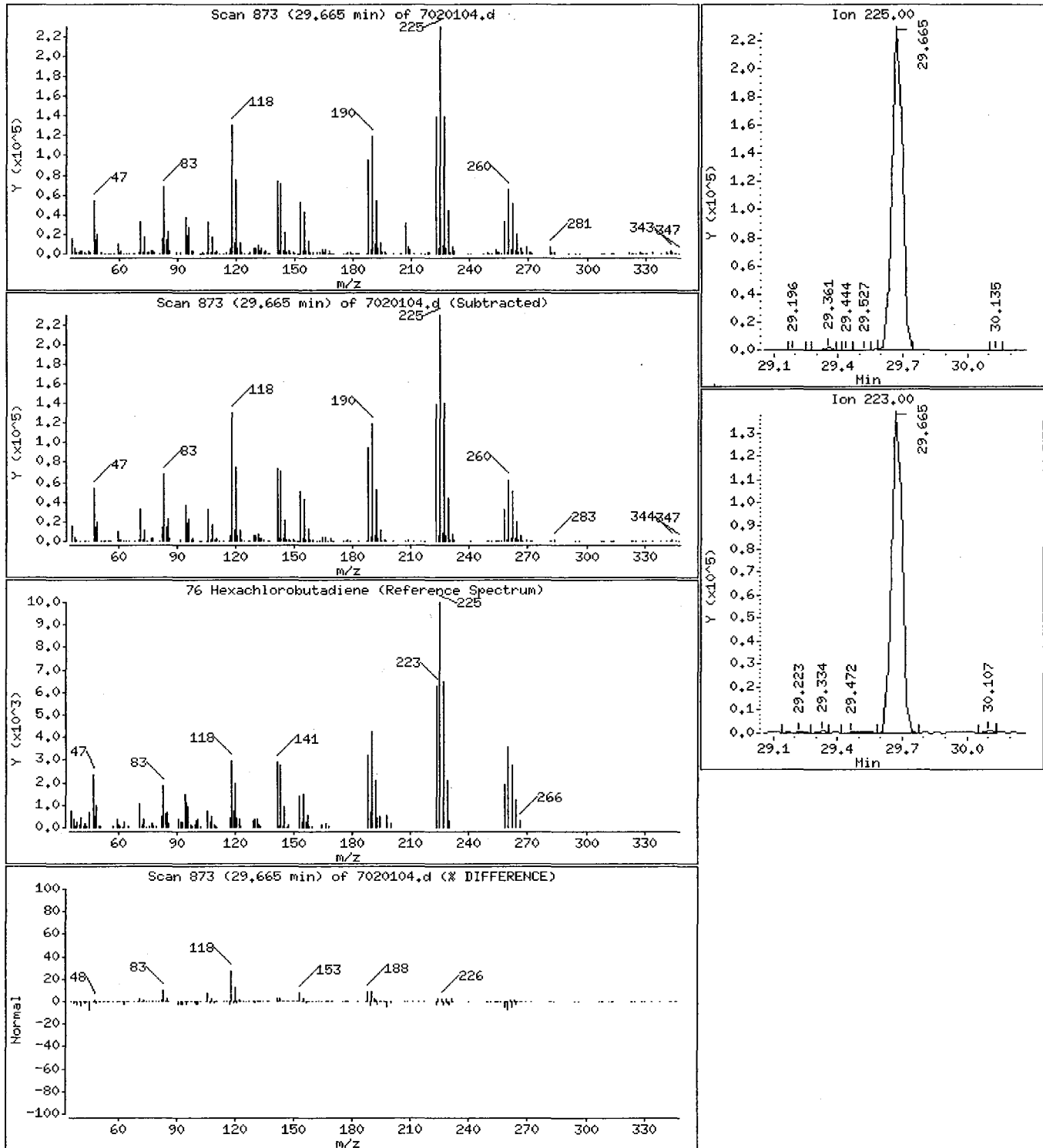
Operator: nk

Column phase: RTX-624

Column diameter: 0.32

76 Hexachlorobutadiene

Concentration: 5,777 PPBV



0723

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

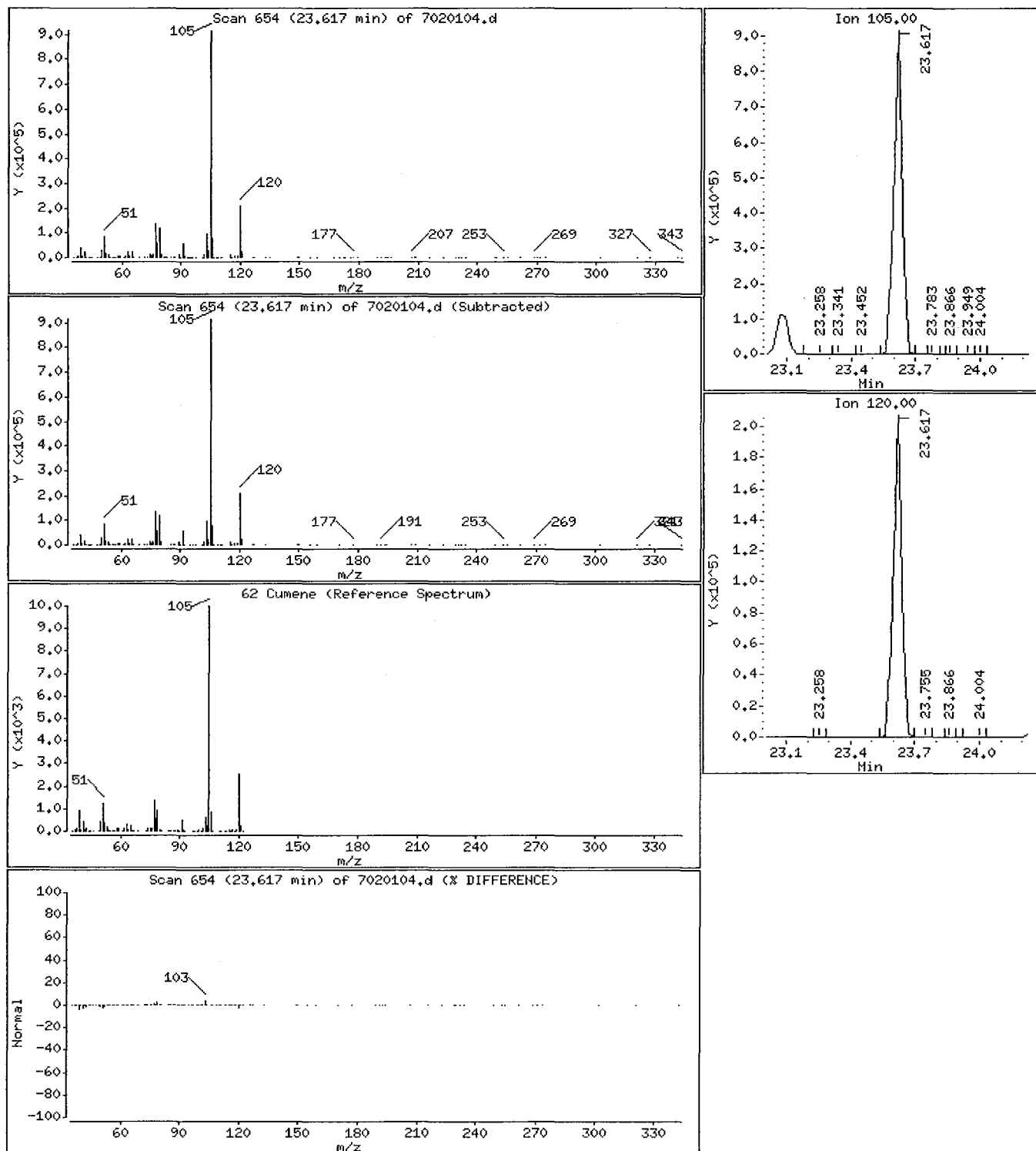
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

62 Cumene

Concentration: 6.336 PPBV



0724

Date : 01-FEB-2005 12:56

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148[50ppbv]

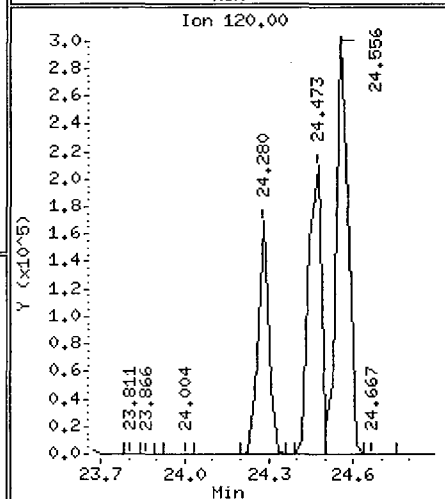
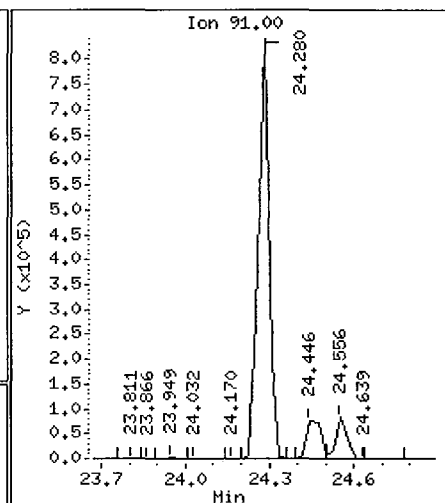
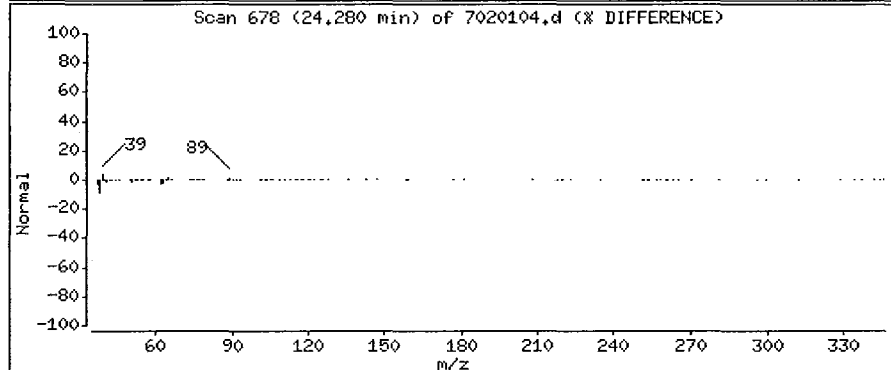
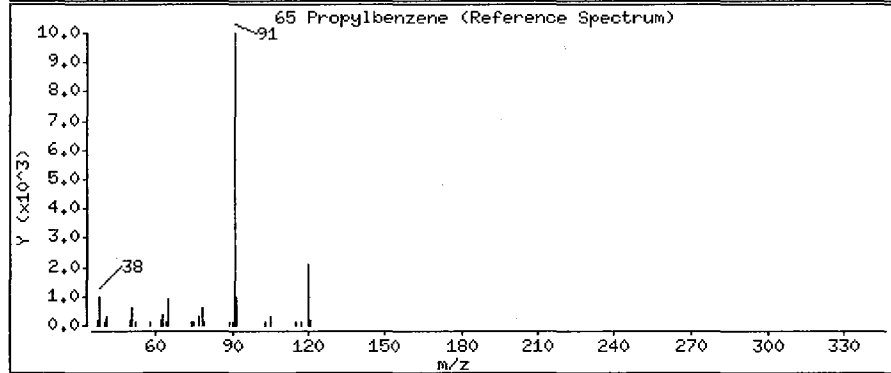
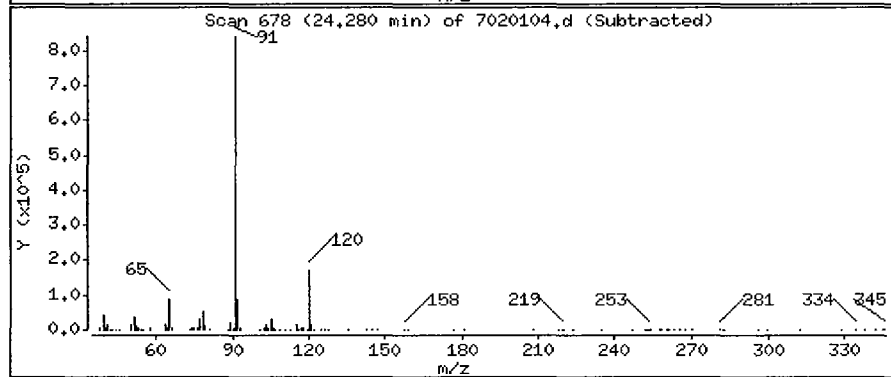
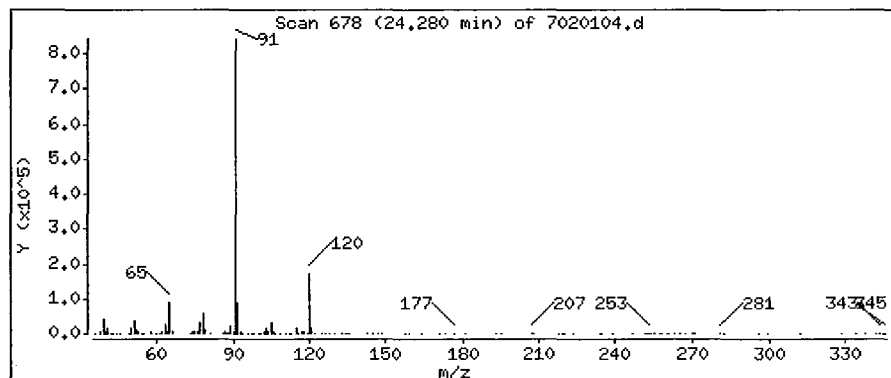
Operator: nk

Column phase: RTx-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 4.174 PPBV



0725

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020224.d
Lab Smp Id: Level 2 Client Smp ID: Level 2
Inj Date : 03-FEB-2005 12:33
Operator : NK Inst ID: msd7.i
Smp Info : #1248-93[1.0ppbv]
Misc Info : 0.5ppbv[250ml]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwrong Quant Type: ISTD
Cal Date : 03-FEB-2005 12:33 Cal File: 7020224.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)	
=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	509502	10.0000		
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2389321	10.0000		
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1691932	10.0000		
142 Isopentane	57	10.390	10.390	(0.636)	52640	0.50000	0.5166	
147 2-Methylpentane	71	13.593	13.566	(0.833)	38642	0.50000	0.4895	
148 2,3-Dimethylpentane	71	16.686	16.686	(0.938)	21881	0.50000	0.4631	
143 Isooctane	56	17.183	17.183	(1.052)	84211	0.50000	0.5269	
144 Thiophene	84	17.542	17.542	(0.986)	62762	0.36500	0.3466	
145 Indan	117	26.324	26.324	(1.190)	180727	0.50000	0.5362	
146 Indene	115	26.738	26.738	(1.208)	153502	0.50000	0.5331	
74 Naphthalene	128	29.969	29.969	(1.354)	173974	0.24000	0.2506	

0726

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020224.d
Lab Smp Id: Level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: NK
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m
Misc Info: 0.5ppbv[250ml]

Calibration Date: 02-FEB-2005
Calibration Time: 23:37
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	509502	-8.74
38 1,4-Difluorobenze	2615588	1569353	3661823	2389321	-8.65
54 Chlorobenzene-d5	1815836	1089502	2542170	1691932	-6.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0727

Date : 03-FEB-2005 12:33

Client ID: Level 2

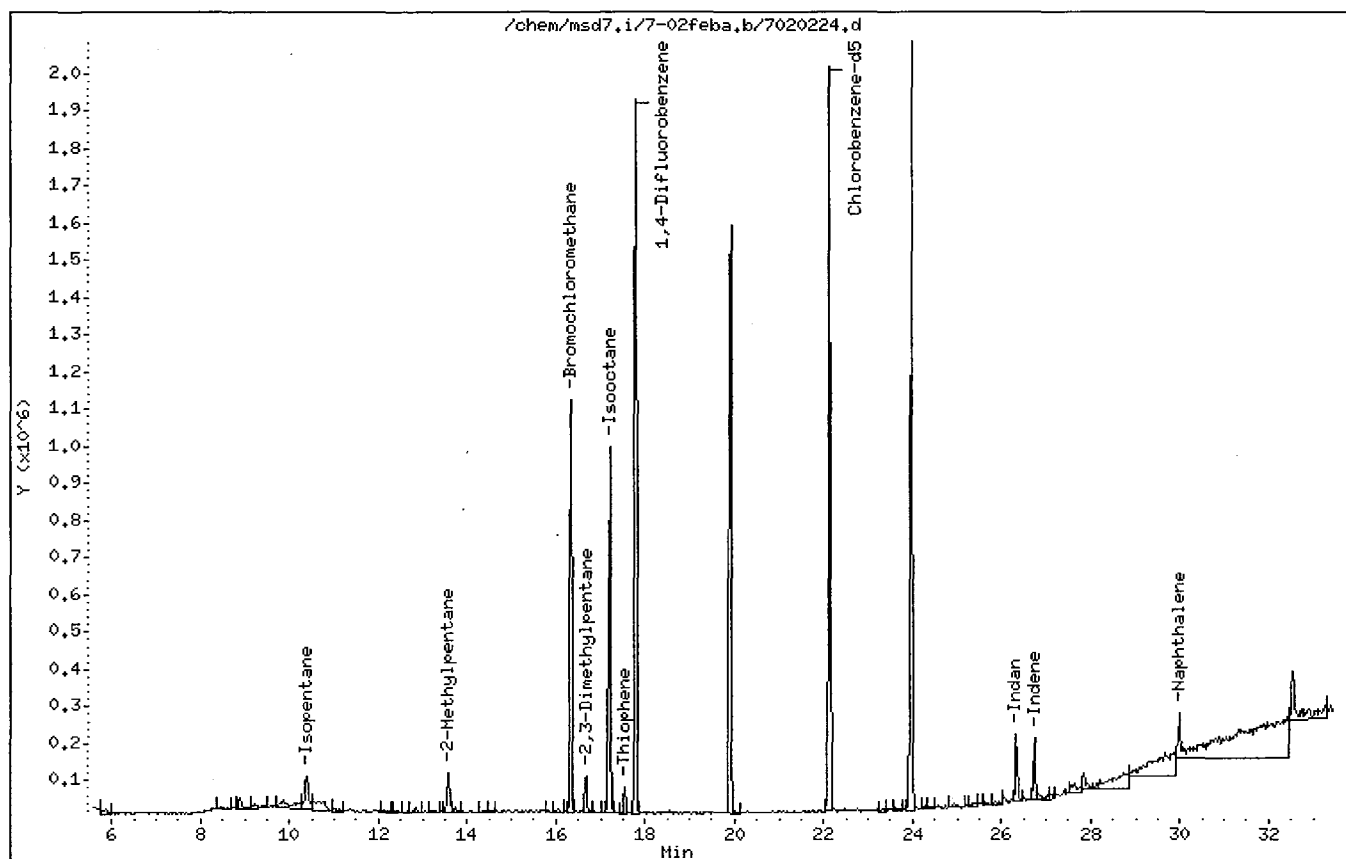
Instrument: msd7.i

Sample Info: #1248-93[1.0ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0728

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-31jan.b/7013107.d
Lab Smp Id: Level 1 Client Smp ID: Level 1
Inj Date : 31-JAN-2005 18:48
Operator : NK Inst ID: msd7.i
Smp Info : #1243-160[1.0ppbv]
Misc Info : 2.0ppbv[50ml]
Comment :
Method : /chem/msd7.i/7-31jan.b/t141J27a.m
Meth Date : 07-Feb-2005 14:43 nkhan Quant Type: ISTD
Cal Date : 31-JAN-2005 18:48 Cal File: 7013107.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: call+B.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG						AMOUNTS	
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)
-----	----	----	--	-----	-----	-----	-----	-----
* 29 Bromochloromethane	130		16.327	16.327	(1.000)	524671	10.0000	
* 38 1,4-Difluorobenzene	114		17.791	17.791	(1.000)	2457007	10.0000	
* 54 Chlorobenzene-d5	117		22.126	22.126	(1.000)	1898661	10.0000	
\$ 34 1,2-Dichloroethane-d4	65		17.211	17.211	(1.054)	1090378	10.0000	10.090
\$ 45 Toluene-d8	98		19.917	19.917	(1.120)	2107241	10.0000	10.053
\$ 63 Bromofluorobenzene	174		23.949	23.949	(1.082)	1037706	10.0000	10.580
1 Dichlorodifluoromethane/Fr12	85		5.971	5.971	(0.366)	52155	0.10000	0.1226
3 Freon 114	135		7.076	7.076	(0.433)	25993	0.10000	0.1100
4 Chloromethane	50		7.352	7.352	(0.450)	9837	0.10000	0.08024
6 Vinyl Chloride	62		8.070	8.070	(0.494)	16533	0.10000	0.1231
8 Bromomethane	94		9.699	9.727	(0.594)	13549	0.08900	0.1255
9 Chloroethane	64		10.196	10.224	(0.624)	7338	0.08400	0.1148
10 Trichlorofluoromethane/Fr11	101		11.025	11.053	(0.675)	42393	0.10000	0.1146
15 Freon 113	151		12.544	12.544	(0.768)	18111	0.10000	0.1185
14 1,1-Dichloroethene	98		12.516	12.516	(0.767)	8692	0.10000	0.1156
20 Methylene Chloride	84		13.731	13.731	(0.841)	14239	0.10000	0.1302
25 1,1-Dichloroethane	63		15.001	15.001	(0.919)	25665	0.10000	0.1146
27 cis-1,2-Dichloroethene	98		15.940	15.940	(0.976)	9040	0.10000	0.1192
30 Chloroform	83		16.410	16.410	(1.005)	27238	0.10000	0.1085
32 1,1,1-Trichloroethane	97		16.658	16.658	(1.020)	19153	0.10000	0.09314
33 Carbon Tetrachloride	119		16.879	16.879	(1.034)	20608	0.10000	0.1094

0729

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)
=====	====	==	=====	=====	=====	=====	=====
35 Benzene	78	17.211	17.211	(0.967)	47454	0.10000	0.1331
36 1,2-Dichloroethane	62	17.321	17.321	(0.974)	18039	0.10000	0.1040
39 Trichloroethene	130	18.149	18.150	(1.020)	11912	0.10000	0.09512
40 1,2-Dichloropropane	63	18.536	18.536	(1.042)	10982	0.10000	0.1070
43 cis-1,3-Dichloropropene	75	19.558	19.558	(1.099)	14959	0.10000	0.09598
46 Toluene	91	20.000	20.000	(1.124)	47786	0.10000	0.1170
47 trans-1,3-Dichloropropene	75	20.359	20.359	(0.920)	16972	0.10000	0.1057
48 1,1,2-Trichloroethane	97	20.663	20.663	(0.934)	11754	0.10000	0.09338
49 Tetrachloroethene	166	20.801	20.801	(0.940)	17089	0.10000	0.1045
53 1,2-Dibromoethane	107	21.463	21.463	(0.970)	16897	0.10000	0.09749
55 Chlorobenzene	112	22.181	22.181	(1.002)	27034	0.10000	0.09961
56 Ethyl Benzene	106	22.264	22.264	(1.006)	15968	0.10000	0.1024
57 m,p-Xylene	106	22.430	22.430	(1.014)	20928	0.10000	0.1098
58 o-Xylene	106	23.065	23.065	(1.042)	17615	0.10000	0.1134
64 1,1,2,2-Tetrachloroethane	83	24.170	24.170	(1.092)	20436	0.10000	0.1106
67 1,3,5-Trimethylbenzene	105	24.556	24.556	(1.110)	40120	0.10000	0.1093
69 1,2,4-Trimethylbenzene	105	25.219	25.219	(1.140)	38025	0.10000	0.1083
70 1,3-Dichlorobenzene	146	25.771	25.771	(1.165)	33116	0.10000	0.1316
71 1,4-Dichlorobenzene	146	25.937	25.937	(1.172)	35890	0.10000	0.1369
72 alpha-Chlorotoluene	91	26.158	26.158	(1.182)	38011	0.10000	0.1284
73 1,2-Dichlorobenzene	146	26.600	26.600	(1.202)	29555	0.10000	0.1320
28 2-Butanone	72	15.968	15.968	(0.978)	7250	0.12000	0.1265
75 1,2,4-Trichlorobenzene	180	29.472	29.472	(1.332)	36137	0.13700	0.1909
76 Hexachlorobutadiene	225	29.665	29.665	(1.341)	21161	0.25400	0.1815

0730

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 01-FEB-2005
Lab File ID: 7013107.d	Calibration Time: 10:50
Lab Smp Id: Level 1	Client Smp ID: Level 1
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-31jan.b/t141J27a.m	
Misc Info: 2.0ppbv[50ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	547376	328426	766326	524671	-4.15
38 1,4-Difluorobenze	2587160	1552296	3622024	2457007	-5.03
54 Chlorobenzene-d5	1908989	1145393	2672585	1898661	-0.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0731

Date : 31-JAN-2005 18:48

Client ID: Level 1

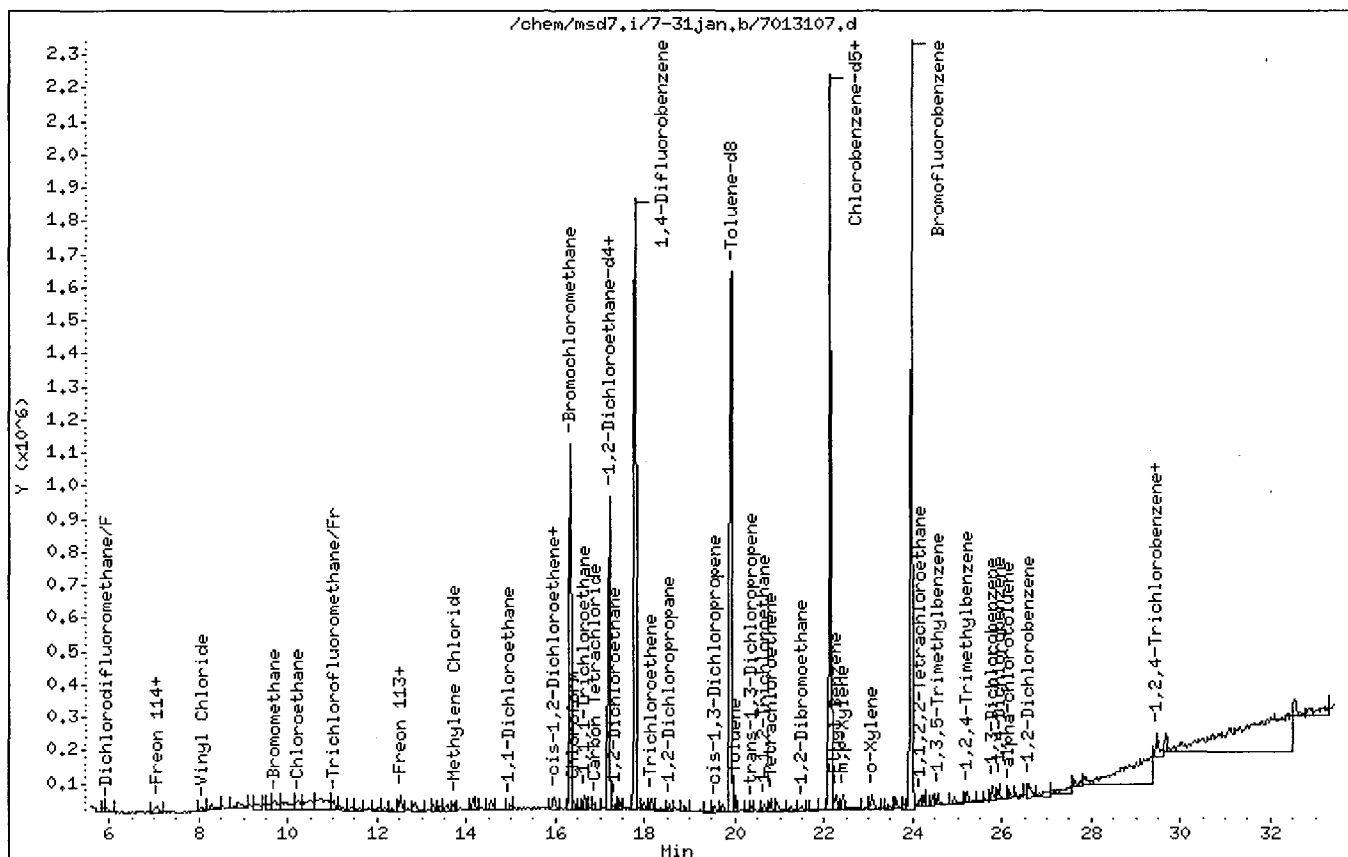
Instrument: msd7.i

Sample Info: #1243-160[1.0ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0732

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-28jan.b/7012802.d
Lab Smp Id: Level 1
Inj Date : 28-JAN-2005 11:14
Operator : jeet
Smp Info : #1243-160 (1ppbv)
Misc Info : 40ml=0.1ppbv
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:39 wwrong
Cal Date : 03-FEB-2005 12:33
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020224.d
Calibration Sample, Level: 1
Compound Sublist: callsty.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
		CAL-AMT		ON-COL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
---	-----	-----	----	-----	-----	-----	-----	-----	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.327	16.331	(1.000)	130	543563	10.0000		50.00- 150.00	100.00	
16.327	16.331	(1.000)	128	417883			26.60- 126.60	76.88	
16.327	16.331	(1.000)	49	970191			126.18- 226.18	178.49	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.791	17.794	(1.000)	114	2504790	10.0000		50.00- 150.00	100.00	
17.791	17.794	(1.000)	88	443847			0.00- 67.02	17.72	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.126	22.130	(1.000)	117	1893450	10.0000		50.00- 150.00	100.00	
22.126	22.130	(1.000)	82	1126504			9.23- 109.23	59.49	

59 Styrene						CAS #: 100-42-5			
23.093	23.093	(1.044)	104	22584	0.09000	0.09422	50.00- 150.00	100.00(a)	
23.093	23.093	(1.044)	78	17368			9.03- 109.03	76.90	

0733

Data File: /chem/msd7.i/7-28jan.b/7012802.d
Report Date: 04-Feb-2005 15:39

Page 2

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

0734

SCOEPA00032406

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7012802.d
Lab Smp Id: Level 1
Analysis Type: VOA
Quant Type: ISTD
Operator: jeet
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 40ml=0.1ppbv

Calibration Date: 04-FEB-2005
Calibration Time: 14:17
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	561295	336777	785813	543563	-3.16
38 1,4-Difluorobenze	2578655	1547193	3610117	2504790	-2.86
54 Chlorobenzene-d5	1828522	1097113	2559931	1893450	3.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	-0.02
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	-0.02
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0735

SCOEPAA00032407

Date : 28-JAN-2005 11:14

Client ID:

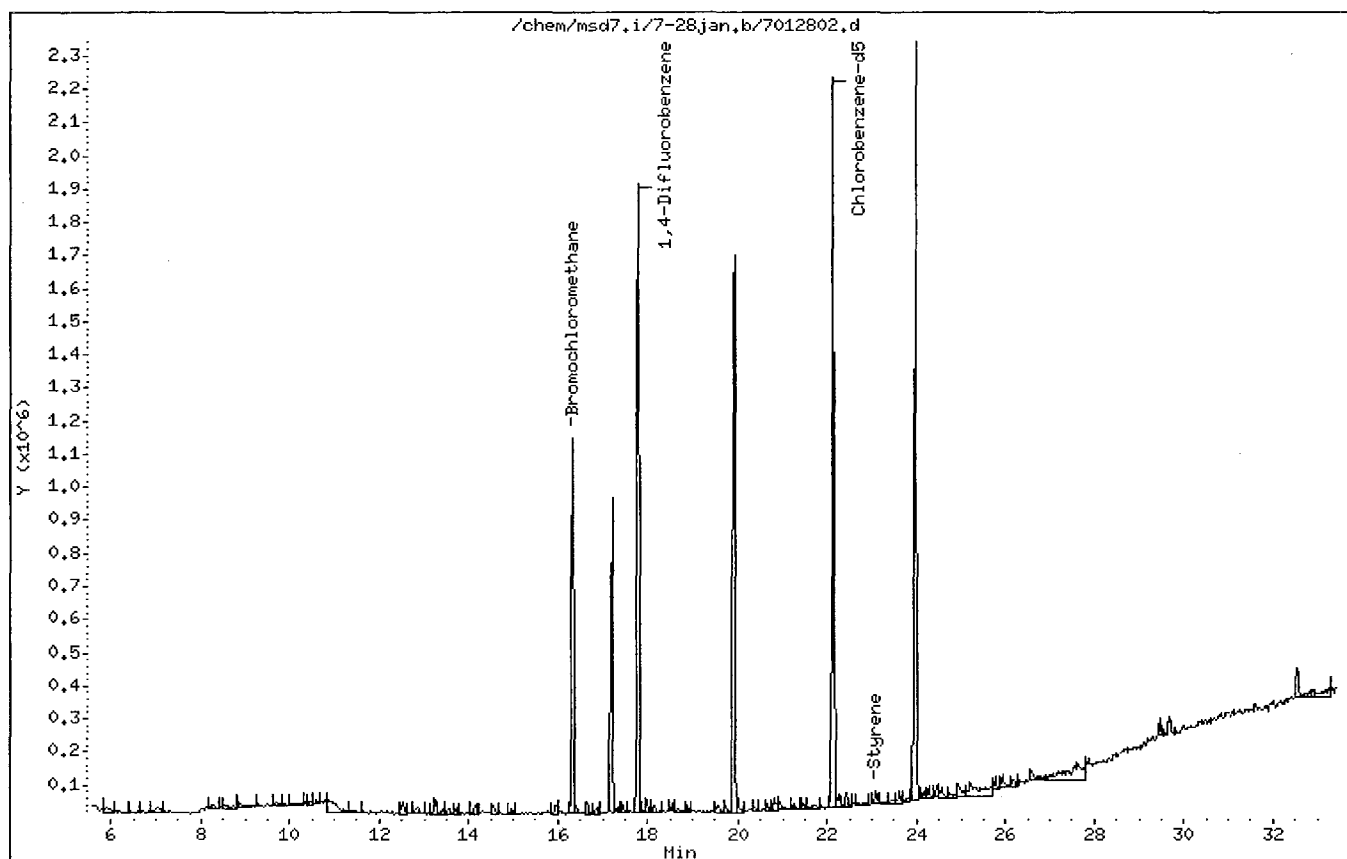
Instrument: msd7.i

Sample Info: #1243-160 (1ppbv)

Operator: jeet

Column phase: RTX-624

Column diameter: 0.32



0736

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020402.d
Lab Smp Id: Level 2 Client Smp ID: Level 2
Inj Date : 04-FEB-2005 05:06
Operator : WW Inst ID: msd7.i
Smp Info : #1243-163 [200ppbv]
Misc Info : 1.25mL [0.5ppbv]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 07-Feb-2005 09:26 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 05:06 Cal File: 7020402.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Sp6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #:	74-97-5	
16.331	16.331	(1.000)	130	563580	10.0000		50.00- 150.00	100.00
16.331	16.331	(1.000)	128	413003			26.96- 126.96	73.28
16.331	16.331	(1.000)	49	968343			126.50- 226.50	171.82

* 38 1,4-Difluorobenzene						CAS #:	540-36-3	
17.794	17.794	(1.000)	114	2505711	10.0000		50.00- 150.00	100.00
17.794	17.794	(1.000)	88	430014			0.00- 67.06	17.16

* 54 Chlorobenzene-d5						CAS #:	3114-55-4	
22.130	22.130	(1.000)	117	1798534	10.0000		50.00- 150.00	100.00
22.130	22.130	(1.000)	82	1056801			9.26- 109.26	58.76

2 Propylene						CAS #:	115-07-1	
5.616	5.671	(0.344)	41	68048	0.50000	0.5427	50.00- 150.00	100.00
5.644	5.671	(0.346)	42	50266			19.57- 119.57	73.87
5.644	5.671	(0.346)	39	60959			24.97- 124.97	89.58

12 Ethanol						CAS #:	64-17-5	
12.050	12.023	(0.738)	45	25403	0.50000	0.4556	50.00- 150.00	100.00

0737

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
12 Ethanol (continued)								
12.050	12.023	(0.738)	43	9774			0.00- 76.71	38.48
12.050	12.023	(0.738)	46	9691			0.00- 90.17	38.15

152 Acetonitrile						CAS #: 75-05-8		
13.542	13.541	(0.829)	40	33120	0.50000	0.5678	50.00- 150.00	100.00
13.569	13.541	(0.831)	41	62453			142.42- 242.42	188.57
13.569	13.541	(0.831)	39	11835			0.00- 90.49	35.73

19 Acrylonitrile						CAS #: 107-13-1		
14.315	14.315	(0.877)	53	48528	0.50000	0.4834	50.00- 150.00	100.00
14.315	14.315	(0.877)	52	38810			28.76- 128.76	79.97

151 Chlorprene						CAS #: 126-99-8		
15.088	15.088	(0.924)	53	174571	0.50000	0.4600	50.00- 150.00	100.00
15.088	15.088	(0.924)	88	70856			0.00- 90.01	40.59

149 Vinyl Bromide						CAS #: 593-60-2		
10.835	10.835	(0.663)	106	46765	0.50000	0.5387	50.00- 150.00	100.00
10.835	10.835	(0.663)	108	42498			40.24- 140.24	90.88

0738

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 04-FEB-2005
Lab File ID: 7020402.d	Calibration Time: 11:49
Lab Smp Id: Level 2	Client Smp ID: Level 2
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 1.25mL [0.5ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	536594	321956	751232	563580	5.03
38 1,4-Difluorobenze	2424171	1454503	3393839	2505711	3.36
54 Chlorobenzene-d5	1781273	1068764	2493782	1798534	0.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0739

SCOEPAA00032411

Date : 04-FEB-2005 05:06

Client ID: Level 2

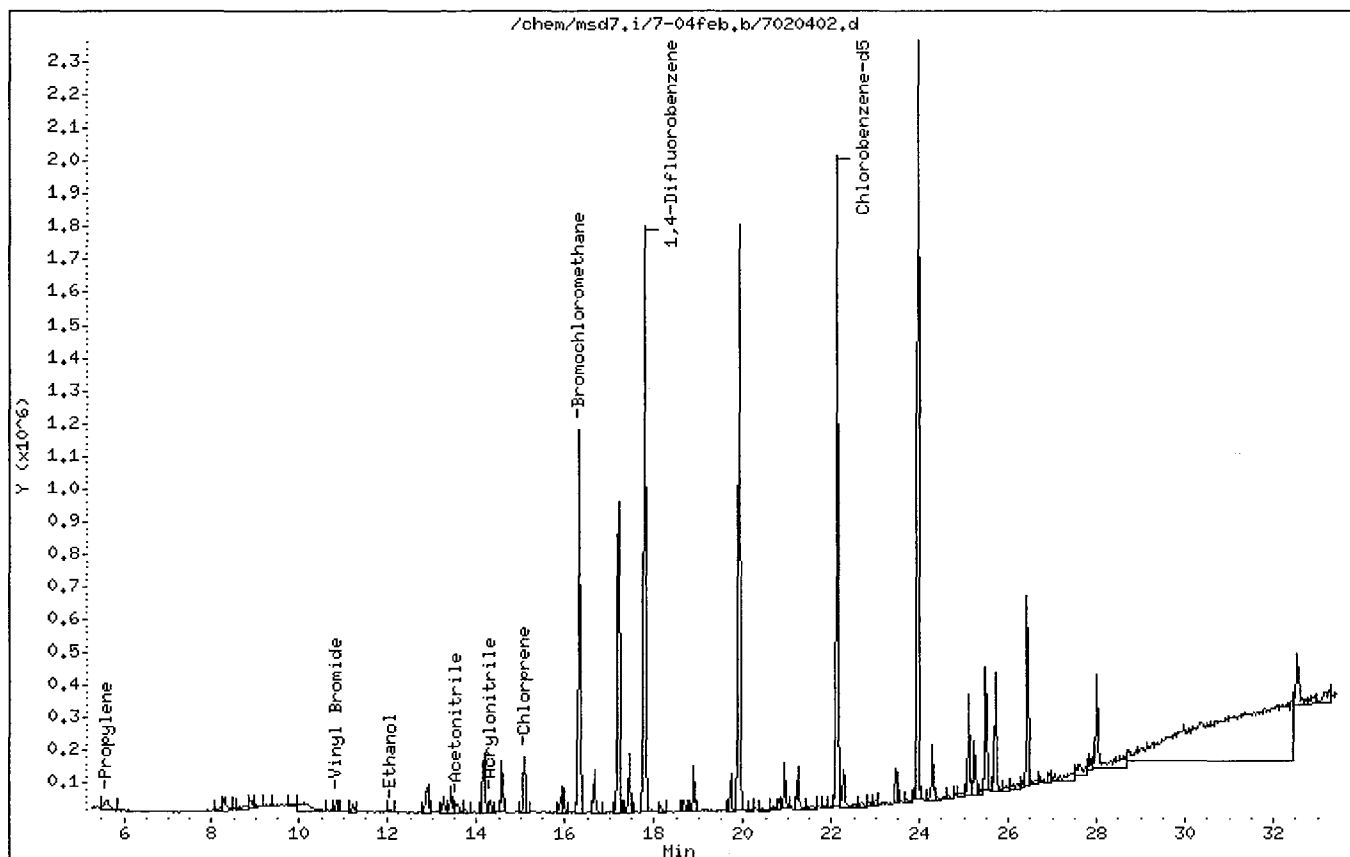
Instrument: msd7.i

Sample Info: #1243-163 [200ppbv]

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0740

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020224.d
Lab Smp Id: Level 2 Client Smp ID: Level 2
Inj Date : 03-FEB-2005 12:33
Operator : NK Inst ID: msd7.i
Smp Info : #1248-93[1.0ppbv]
Misc Info : 0.5ppbv[250ml]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwong Quant Type: ISTD
Cal Date : 03-FEB-2005 12:33 Cal File: 7020224.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						AMOUNTS	
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)
*****	----	---	--	-----	-----	-----	-----	-----
* 29 Bromochloromethane	130		16.327	16.327	(1.000)	509502	10.0000	
* 38 1,4-Difluorobenzene	114		17.791	17.791	(1.000)	2389321	10.0000	
* 54 Chlorobenzene-d5	117		22.126	22.126	(1.000)	1691932	10.0000	
142 Isopentane	57		10.390	10.390	(0.636)	52640	0.50000	0.5166
147 2-Methylpentane	71		13.593	13.566	(0.833)	38642	0.50000	0.4895
148 2,3-Dimethylpentane	71		16.686	16.686	(0.938)	21881	0.50000	0.4631
143 Isooctane	56		17.183	17.183	(1.052)	84211	0.50000	0.5269
144 Thiophene	84		17.542	17.542	(0.986)	62762	0.36500	0.3466
145 Indan	117		26.324	26.324	(1.190)	180727	0.50000	0.5362
146 Indene	115		26.738	26.738	(1.208)	153502	0.50000	0.5331
74 Naphthalene	128		29.969	29.969	(1.354)	173974	0.24000	0.2506

0741

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 02-FEB-2005
Lab File ID: 7020224.d	Calibration Time: 23:37
Lab Smp Id: Level 2	Client Smp ID: Level 2
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m	
Misc Info: 0.5ppbv[250ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	509502	-8.74
38 1,4-Difluorobenze	2615588	1569353	3661823	2389321	-8.65
54 Chlorobenzene-d5	1815836	1089502	2542170	1691932	-6.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0742

Data File: /chem/msd7.i/7-02feba.b/7020224.d

Page 1

Date : 03-FEB-2005 12:33

Client ID: Level 2

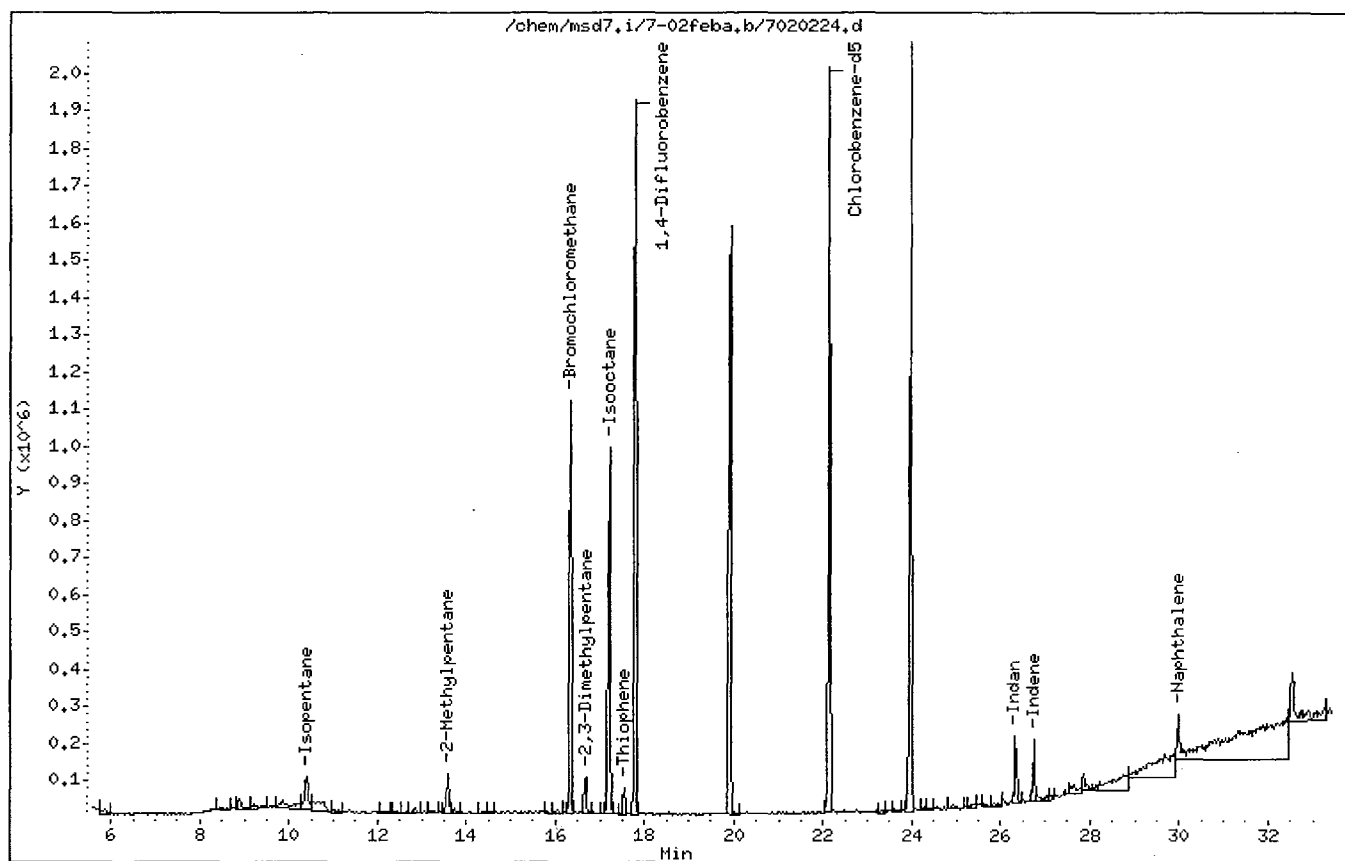
Instrument: msd7.i

Sample Info: #1248-93[1.0ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0743

SCOEP00032415

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-31jan.b/7013104.d
Lab Smp Id: Level 2 Client Smp ID: Level 2
Inj Date : 31-JAN-2005 16:13
Operator : NK Inst ID: msd7.i
Smp Info : #1243-159[2.0ppbv]
Misc Info : 0.5ppbv[125ml]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:40 wwrong Quant Type: ISTD
Cal Date : 04-FEB-2005 05:06 Cal File: 7020402.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5		
16.327	16.327	(1.000)	130	577036	10.0000		50.00- 150.00	100.00
16.327	16.327	(1.000)	128	455535			27.57- 127.57	78.94
16.327	16.327	(1.000)	49	1027272			131.07- 231.07	178.03

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.790	17.791	(1.000)	114	2744060	10.0000		50.00- 150.00	100.00
17.790	17.791	(1.000)	88	492874			0.00- 67.30	17.96

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.126	22.126	(1.000)	117	1970868	10.0000		50.00- 150.00	100.00
22.126	22.126	(1.000)	82	1168380			9.76- 109.76	59.28

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
17.210	17.211	(1.054)	65	1199143	10.0000	10.090	50.00- 150.00	100.00
17.210	17.211	(1.054)	67	543908			0.17- 100.17	45.36

\$ 45 Toluene-d8						CAS #: 2037-26-5		
19.917	19.917	(1.120)	98	2350984	10.0000	10.042	50.00- 150.00	100.00
19.917	19.889	(1.120)	70	284914			0.00- 62.02	12.12

0744

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.917	19.917	(1.120)	100	1696596			22.07-	122.07	72.17

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.976	23.949	(1.084)	174	1025496	10.0000	10.072	50.00-	150.00	100.00
23.949	23.949	(1.082)	95	1618101			106.39-	206.39	157.79
23.976	23.977	(1.084)	176	980166			46.50-	146.50	95.58

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.943	5.944	(0.364)	85	213146	0.50000	0.4557	50.00-	150.00	100.00
5.916	5.944	(0.362)	87	71557			0.00-	78.70	33.57

3 Freon 114						CAS #: 76-14-2			
7.048	7.048	(0.432)	135	116538	0.50000	0.4486	50.00-	150.00	100.00
7.048	7.048	(0.432)	137	41045			0.00-	81.73	35.22

4 Chloromethane						CAS #: 74-87-3			
7.352	7.352	(0.450)	50	77460	0.50000	0.5744	50.00-	150.00	100.00
7.352	7.352	(0.450)	52	28152			0.00-	84.65	36.34

6 Vinyl Chloride						CAS #: 75-01-4			
8.070	8.070	(0.494)	62	71453	0.50000	0.4838	50.00-	150.00	100.00
8.042	8.070	(0.493)	64	21084			0.00-	79.81	29.51

7 1,3-Butadiene						CAS #: 106-99-0			
8.291	8.291	(0.508)	54	58643	0.50000	0.4770	50.00-	150.00	100.00
8.291	8.291	(0.508)	39	63891			48.03-	148.03	108.95

8 Bromomethane						CAS #: 74-83-9			
9.727	9.727	(0.596)	94	53461	0.44500	0.4502	50.00-	150.00	100.00
9.727	9.727	(0.596)	96	45093			40.37-	140.37	84.35

9 Chloroethane						CAS #: 75-00-3			
10.224	10.224	(0.626)	64	30856	0.42000	0.4387	50.00-	150.00	100.00
10.224	10.224	(0.626)	66	9680			0.00-	83.15	31.37

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.052	11.053	(0.677)	101	190992	0.50000	0.4696	50.00-	150.00	100.00(H)
11.052	11.053	(0.677)	103	125171			14.55-	114.55	65.54

12 Ethanol						CAS #: 64-17-5			
12.046	12.047	(0.738)	45	28800	0.50000	0.5388	50.00-	150.00	100.00
12.046	12.047	(0.738)	43	4707			0.00-	71.17	16.34
12.046	12.047	(0.738)	46	8748			0.00-	88.44	30.38

15 Freon 113						CAS #: 76-13-1			
12.544	12.544	(0.768)	151	85534	0.50000	0.5088	50.00-	150.00	100.00

0745

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
---	-----	-----	----	-----	-----	-----	-----	-----	-----
15 Freon 113 (continued)									
12.544	12.544	(0.768)	153	50323			10.02-	110.02	58.83
12.544	12.544	(0.768)	101	111467			83.72-	183.72	130.32

14 1,1-Dichloroethene						CAS #: 75-35-4			
12.544	12.516	(0.768)	98	37986	0.50000	0.4592	50.00-	150.00	100.00
12.516	12.516	(0.767)	61	105760			236.35-	336.35	278.42
12.516	12.516	(0.767)	96	72177			123.22-	223.22	190.01

16 Acetone						CAS #: 67-64-1			
12.847	12.848	(0.787)	43	172821	0.50000	0.5684	50.00-	150.00	100.00
12.847	12.848	(0.787)	58	51890			0.00-	78.78	30.03

17 Carbon Disulfide						CAS #: 75-15-0			
12.903	12.903	(0.790)	76	179905	0.50000	0.4764	50.00-	150.00	100.00

18 2-Propanol						CAS #: 67-63-0			
13.262	13.234	(0.812)	45	157791	0.50000	0.5493	50.00-	150.00	100.00
13.262	13.234	(0.812)	43	35007			0.00-	69.77	22.19
13.234	13.234	(0.811)	59	6192			0.00-	53.72	3.92

20 Methylene Chloride						CAS #: 75-09-2			
13.731	13.731	(0.841)	84	59938	0.50000	0.4981	50.00-	150.00	100.00
13.731	13.731	(0.841)	49	86122			95.37-	195.37	143.69
13.731	13.731	(0.841)	51	24992			0.00-	93.42	41.70

21 MTBE						CAS #: 1634-04-4			
14.145	14.145	(0.866)	73	163250	0.50000	0.4884	50.00-	150.00	100.00
14.145	14.145	(0.866)	57	40647			0.00-	73.89	24.90
14.145	14.145	(0.866)	41	39588			0.00-	73.24	24.25

22 trans-1,2-Dichloroethene						CAS #: 156-60-5			
14.173	14.173	(0.868)	98	46595	0.50000	0.5220	50.00-	150.00	100.00
14.173	14.173	(0.868)	61	110051			191.91-	291.91	236.19
14.173	14.173	(0.868)	96	71976			105.43-	205.43	154.47

24 Hexane						CAS #: 110-54-3			
14.559	14.560	(0.892)	57	119028	0.50000	0.5220	50.00-	150.00	100.00
14.559	14.560	(0.892)	43	82200			15.23-	115.23	69.06
14.559	14.560	(0.892)	86	18227			0.00-	65.23	15.31

25 1,1-Dichloroethane						CAS #: 75-34-3			
15.001	15.002	(0.919)	63	122606	0.50000	0.4976	50.00-	150.00	100.00
15.001	15.002	(0.919)	65	37845			0.00-	79.39	30.87

26 Vinyl Acetate						CAS #: 108-05-4			
15.057	15.057	(0.922)	43	39687	0.50000	0.5884	50.00-	150.00	100.00

0746

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE (PPBV)	CAL-AMT ON-COL (PPBV)	TARGET RANGE	RATIO
=====							
26 Vinyl Acetate (continued)							
15.057	15.057	(0.922)	42	4792		0.00- 59.38	12.07
15.057	15.057	(0.922)	86	4132		0.00- 58.64	10.41

27 cis-1,2-Dichloroethene				CAS #: 156-59-2			
15.940	15.940	(0.976)	98	42150 0.50000	0.5051	50.00- 150.00	100.00
15.940	15.940	(0.976)	61	120072		236.14- 336.14	284.87
15.940	15.940	(0.976)	96	67360		126.98- 226.98	159.81

28 2-Butanone				CAS #: 78-93-3			
15.968	15.968	(0.978)	72	35938 0.50000	0.4753	50.00- 150.00	100.00
15.995	15.968	(0.980)	43	369832		985.71-1085.71	1029.08
15.968	15.968	(0.978)	57	10477		0.00- 89.21	29.15

23 Tetrahydrofuran				CAS #: 109-99-9			
16.327	16.327	(1.000)	42	103656 0.50000	0.6660	50.00- 150.00	100.00
16.327	16.327	(1.000)	71	34863		0.00- 79.70	33.63
16.327	16.327	(1.000)	72	36636		0.00- 80.08	35.34

30 Chloroform				CAS #: 67-66-3			
16.410	16.410	(1.005)	83	130916 0.50000	0.4743	50.00- 150.00	100.00
16.410	16.410	(1.005)	85	88564		13.79- 113.79	67.65

31 Cyclohexane				CAS #: 110-82-7			
16.658	16.658	(1.020)	84	66845 0.50000	0.5302	50.00- 150.00	100.00
16.658	16.658	(1.020)	56	95052		93.37- 193.37	142.20
16.658	16.658	(1.020)	41	52077		30.80- 130.80	77.91

32 1,1,1-Trichloroethane				CAS #: 71-55-6			
16.658	16.658	(1.020)	97	121237 0.50000	0.5361	50.00- 150.00	100.00
16.658	16.658	(1.020)	99	73038		15.31- 115.31	60.24

33 Carbon Tetrachloride				CAS #: 56-23-5			
16.879	16.879	(1.034)	119	107394 0.50000	0.5183	50.00- 150.00	100.00
16.879	16.879	(1.034)	117	109702		60.43- 160.43	102.15

35 Benzene				CAS #: 71-43-2			
17.210	17.211	(0.967)	78	209375 0.50000	0.5257	50.00- 150.00	100.00
17.210	17.211	(0.967)	77	45784		0.00- 72.07	21.87

36 1,2-Dichloroethane				CAS #: 107-06-2			
17.321	17.321	(0.974)	62	93061 0.50000	0.4806	50.00- 150.00	100.00
17.321	17.321	(0.974)	64	29927		0.00- 81.56	32.16

37 Heptane				CAS #: 142-82-5			
17.431	17.432	(0.980)	43	114970 0.50000	0.4944	50.00- 150.00	100.00

0747

AMOUNTS									
					CAL-AMT	ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
37 Heptane (continued)									
17.459	17.432	(0.981)	57	57239			1.42- 101.42	49.79	
17.459	17.459	(0.981)	100	19367			0.00- 66.93	16.85	

39 Trichloroethene						CAS #: 79-01-6			
18.149	18.150	(1.020)	130	69098	0.50000	0.4940	50.00- 150.00	100.00	
18.149	18.150	(1.020)	95	78989			66.40- 166.40	114.31	
18.149	18.150	(1.020)	97	50055			23.45- 123.45	72.44	

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.536	18.536	(1.042)	63	56206	0.50000	0.4902	50.00- 150.00	100.00	
18.536	18.536	(1.042)	62	36766			15.34- 115.34	65.41	
18.536	18.536	(1.042)	41	59346			49.57- 149.57	105.59	

41 1,4-Dioxane						CAS #: 123-91-1			
18.674	18.674	(1.050)	88	39456	0.50000	0.4844	50.00- 150.00	100.00	
18.674	18.647	(1.050)	58	35946			30.18- 130.18	91.10	
18.674	18.647	(1.050)	57	9683			0.00- 75.47	24.54	

42 Bromodichloromethane						CAS #: 75-27-4			
18.895	18.895	(1.062)	83	120282	0.50000	0.4637	50.00- 150.00	100.00	
18.895	18.895	(1.062)	85	74068			13.56- 113.56	61.58	

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.558	19.558	(1.099)	75	81981	0.50000	0.4709	50.00- 150.00	100.00	
19.558	19.558	(1.099)	77	29390			0.00- 85.11	35.85	
19.558	19.558	(1.099)	39	46922			14.09- 114.09	57.24	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.724	19.724	(1.109)	43	112101	0.50000	0.4357	50.00- 150.00	100.00	
19.724	19.724	(1.109)	58	41900			0.00- 87.48	37.38	
19.724	19.724	(1.109)	85	21270			0.00- 66.91	18.97	

46 Toluene						CAS #: 108-88-3			
20.000	20.000	(1.124)	91	223908	0.50000	0.4908	50.00- 150.00	100.00	
20.000	20.000	(1.124)	92	136159			10.82- 110.82	60.81	

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.359	20.359	(0.920)	75	76049	0.50000	0.4562	50.00- 150.00	100.00	
20.386	20.359	(0.921)	77	24583			0.00- 83.15	32.33	
20.359	20.359	(0.920)	39	45217			4.33- 104.33	59.46	

48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.662	20.663	(0.934)	97	64863	0.50000	0.4964	50.00- 150.00	100.00	
20.662	20.663	(0.934)	99	41827			15.28- 115.28	64.49	
20.662	20.663	(0.934)	83	51565			30.67- 130.67	79.50	

0748

AMOUNTS								
				CAL-AMT		ON-COL		
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #:	127-18-4	
20.800	20.801	(0.940)	166	83486	0.50000	0.4919	50.00- 150.00	100.00
20.800	20.801	(0.940)	129	63073			25.91- 125.91	75.55
20.800	20.801	(0.940)	131	61761			24.96- 124.96	73.98

50 2-Hexanone						CAS #:	591-78-6	
20.939	20.939	(0.946)	58	55037	0.50000	0.4274	50.00- 150.00	100.00
20.939	20.939	(0.946)	43	109850			143.59- 243.59	199.59
20.939	20.939	(0.946)	100	10678			0.00- 68.76	19.40

51 Dibromochloromethane						CAS #:	124-48-1	
21.242	21.243	(0.960)	129	77640	0.50000	0.4224	50.00- 150.00	100.00
21.353	21.243	(0.965)	208	1347			0.00- 54.14	1.73

53 1,2-Dibromoethane						CAS #:	106-93-4	
21.463	21.464	(0.970)	107	81584	0.50000	0.4534	50.00- 150.00	100.00
21.463	21.464	(0.970)	109	79665			42.42- 142.42	97.65

55 Chlorobenzene						CAS #:	108-90-7	
22.181	22.181	(1.002)	112	139994	0.50000	0.4969	50.00- 150.00	100.00
22.181	22.181	(1.002)	114	42243			0.00- 81.53	30.17
22.181	22.181	(1.002)	77	116662			30.76- 130.76	83.33

56 Ethyl Benzene						CAS #:	100-41-4	
22.264	22.264	(1.006)	106	79963	0.50000	0.4942	50.00- 150.00	100.00
22.264	22.264	(1.006)	91	260134			294.78- 394.78	325.32

57 m,p-Xylene						CAS #:	108-38-3	
22.430	22.430	(1.014)	106	97927	0.50000	0.4948	50.00- 150.00	100.00
22.430	22.430	(1.014)	91	194377			167.96- 267.96	198.49

58 o-Xylene						CAS #:	95-47-6	
23.065	23.065	(1.042)	106	71428	0.50000	0.4432	50.00- 150.00	100.00
23.065	23.065	(1.042)	91	170124			177.83- 277.83	238.18

59 Styrene						CAS #:	100-42-5	
23.093	23.093	(1.044)	104	119365	0.57000	0.4784	50.00- 150.00	100.00
23.093	23.093	(1.044)	78	69265			9.03- 109.03	58.03

60 Bromoform						CAS #:	75-25-2	
23.479	23.479	(1.061)	173	49338	0.50000	0.3714	50.00- 150.00	100.00
23.479	23.479	(1.061)	171	26356			1.45- 101.45	53.42

64 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5	
24.170	24.170	(1.092)	83	87015	0.50000	0.4535	50.00- 150.00	100.00
24.170	24.170	(1.092)	85	59287			14.48- 114.48	68.13

0749

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
66 4-Ethyltoluene						CAS #: 622-96-8		
24.473	24.474	(1.106)	105	215433	0.50000	0.5017	50.00- 150.00	100.00
24.473	24.474	(1.106)	120	59796			0.00- 75.33	27.76

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.556	24.556	(1.110)	105	185783	0.50000	0.4876	50.00- 150.00	100.00
24.556	24.556	(1.110)	120	70710			0.00- 89.49	38.06

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.219	25.219	(1.140)	105	186223	0.50000	0.5109	50.00- 150.00	100.00
25.219	25.219	(1.140)	120	72410			0.00- 88.71	38.88

70 1,3-Dichlorobenzene						CAS #: 541-73-1		
25.771	25.771	(1.165)	146	135482	0.50000	0.5185	50.00- 150.00	100.00
25.771	25.771	(1.165)	148	83252			13.36- 113.36	61.45
25.771	25.771	(1.165)	111	62086			0.00- 93.12	45.83

71 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.937	25.937	(1.172)	146	147831	0.50000	0.5432	50.00- 150.00	100.00
25.937	25.937	(1.172)	148	96308			12.91- 112.91	65.15
25.937	25.937	(1.172)	111	53658			0.00- 90.99	36.30

72 alpha-Chlorotoluene						CAS #: 100-44-7		
26.158	26.158	(1.182)	91	153872	0.50000	0.5009	50.00- 150.00	100.00
26.158	26.158	(1.182)	126	25958			0.00- 66.94	16.87

73 1,2-Dichlorobenzene						CAS #: 95-50-1		
26.600	26.600	(1.202)	146	130284	0.50000	0.5604	50.00- 150.00	100.00
26.600	26.600	(1.202)	148	76404			13.35- 113.35	58.64
26.600	26.600	(1.202)	111	57701			0.00- 94.07	44.29

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
29.472	29.472	(1.332)	180	136936	0.63500	0.7013	50.00- 150.00	100.00
29.472	29.472	(1.332)	182	133131			44.10- 144.10	97.22

76 Hexachlorobutadiene						CAS #: 87-68-3		
29.665	29.665	(1.341)	225	106620	0.63500	0.8336	50.00- 150.00	100.00
29.665	29.665	(1.341)	223	72822			13.94- 113.94	68.30

62 Cumene						CAS #: 98-82-8		
23.617	23.617	(1.067)	105	192939	0.50000	0.4931	50.00- 150.00	100.00
23.617	23.617	(1.067)	120	47333			0.00- 71.87	24.53

65 Propylbenzene						CAS #: 103-65-1		
24.280	24.280	(1.097)	91	286363	0.50000	0.5320	50.00- 150.00	100.00
24.280	24.280	(1.097)	120	56123			0.00- 69.14	19.60

0750

Data File: /chem/msd7.i/7-31jan.b/7013104.d
Report Date: 04-Feb-2005 15:40

Page 8

QC Flag Legend

H - Operator selected an alternate compound hit.

0751

SCOEPA00032423

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7013104.d
Lab Smp Id: Level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: NK
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 0.5ppbv[125ml]

Calibration Date: 28-JAN-2005
Calibration Time: 11:56
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	574395	344637	804153	577036	0.46
38 1,4-Difluorobenze	2663440	1598064	3728816	2744060	3.03
54 Chlorobenzene-d5	1877154	1126292	2628016	1970868	4.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0752

SCOEPAA00032424

Date : 31-JAN-2005 16:13

Client ID: Level 2

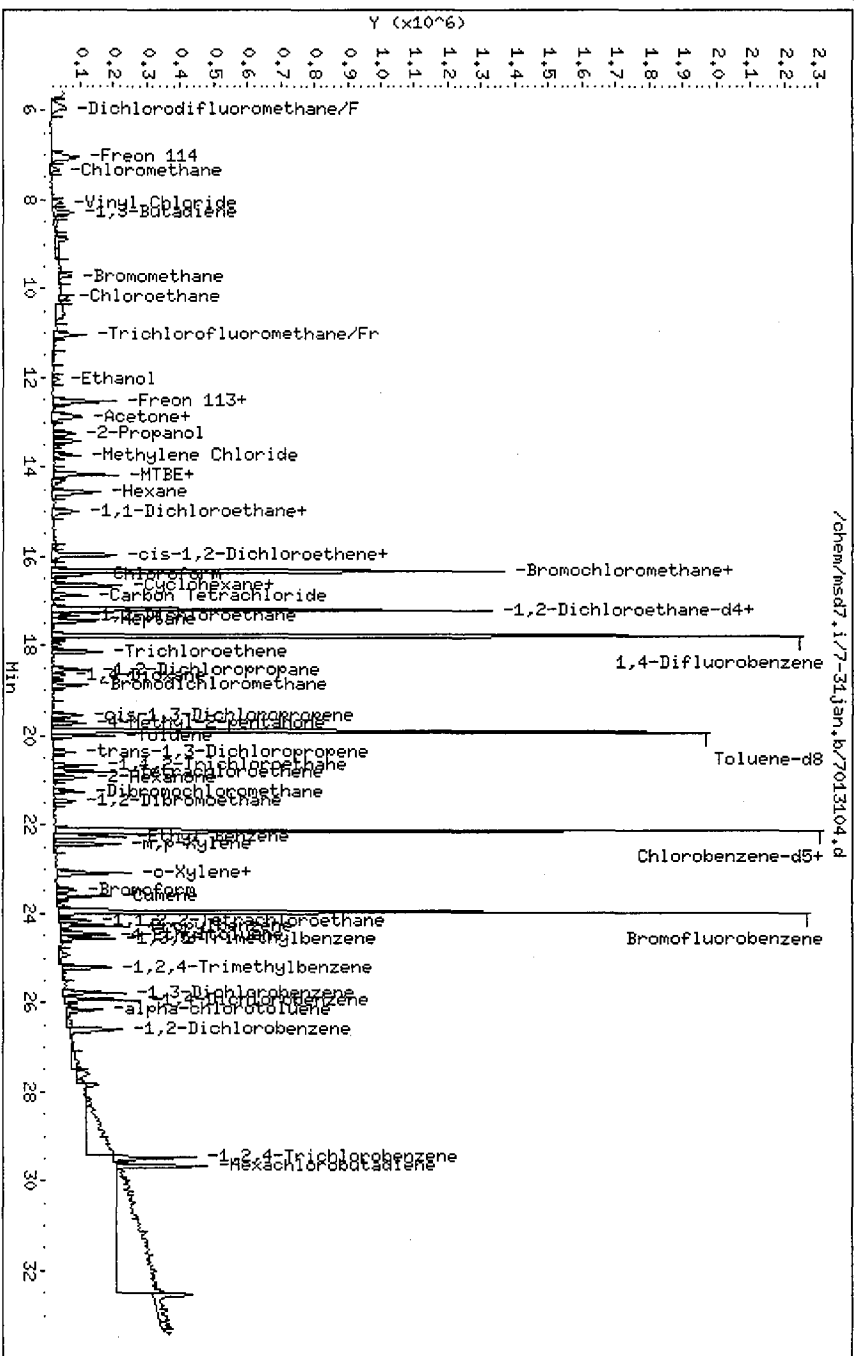
Instrument: msd7.i

Sample Info: #1243-15912.0ppbv

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0753

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020403.d
Lab Smp Id: Level 3 Client Smp ID: Level 3
Inj Date : 04-FEB-2005 05:45
Operator : WW Inst ID: msd7.i
Smp Info : #1243-163 [200ppbv]
Misc Info : 5.0mL [2.0ppbv]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 07-Feb-2005 09:26 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 05:45 Cal File: 7020403.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Sp6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----	-----	-----
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	547098	10.0000		50.00- 150.00	100.00
16.331	16.331	(1.000)	128	418642			26.96- 126.96	76.52
16.331	16.331	(1.000)	49	961606			126.50- 226.50	175.76

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2562926	10.0000		50.00- 150.00	100.00
17.767	17.794	(1.000)	88	425108			0.00- 67.06	16.59

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1817448	10.0000		50.00- 150.00	100.00
22.130	22.130	(1.000)	82	1068685			9.26- 109.26	58.81

2 Propylene						CAS #: 115-07-1		
5.644	5.671	(0.346)	41	235826	2.00000	1.937	50.00- 150.00	100.00
5.644	5.671	(0.346)	42	164898			19.57- 119.57	69.92
5.616	5.671	(0.344)	39	171793			24.97- 124.97	72.85

12 Ethanol						CAS #: 64-17-5		
12.050	12.023	(0.738)	45	107632	2.00000	1.989	50.00- 150.00	100.00

0754

AMOUNTS									
		CAL-AMT		ON-COL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
12 Ethanol (continued)									
12.050	12.023	(0.738)	43	28164			0.00-	76.71	26.17
12.050	12.023	(0.738)	46	46200			0.00-	90.17	42.92

152 Acetonitrile						CAS #: 75-05-8			
13.542	13.541	(0.829)	40	113005	2.00000	1.996	50.00-	150.00	100.00
13.542	13.541	(0.829)	41	212816			142.42-	242.42	188.32
13.542	13.541	(0.829)	39	48837			0.00-	90.49	43.22

19 Acrylonitrile						CAS #: 107-13-1			
14.315	14.315	(0.877)	53	192442	2.00000	1.975	50.00-	150.00	100.00
14.315	14.315	(0.877)	52	148730			28.76-	128.76	77.29

151 Chlorprene						CAS #: 126-99-8			
15.088	15.088	(0.924)	53	694551	2.00000	1.885	50.00-	150.00	100.00
15.088	15.088	(0.924)	88	277802			0.00-	90.01	40.00

149 Vinyl Bromide						CAS #: 593-60-2			
10.835	10.835	(0.663)	106	147344	2.00000	1.748	50.00-	150.00	100.00
10.863	10.835	(0.665)	108	138498			40.24-	140.24	94.00

0755

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020403.d
Lab Smp Id: Level 3
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 5.0mL [2.0ppbv]

Calibration Date: 04-FEB-2005
Calibration Time: 11:49
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	536594	321956	751232	547098	1.96
38 1,4-Difluorobenze	2424171	1454503	3393839	2562926	5.72
54 Chlorobenzene-d5	1781273	1068764	2493782	1817448	2.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0756

SCOEPAA00032428

Date : 04-FEB-2005 05:45

Client ID: Level 3

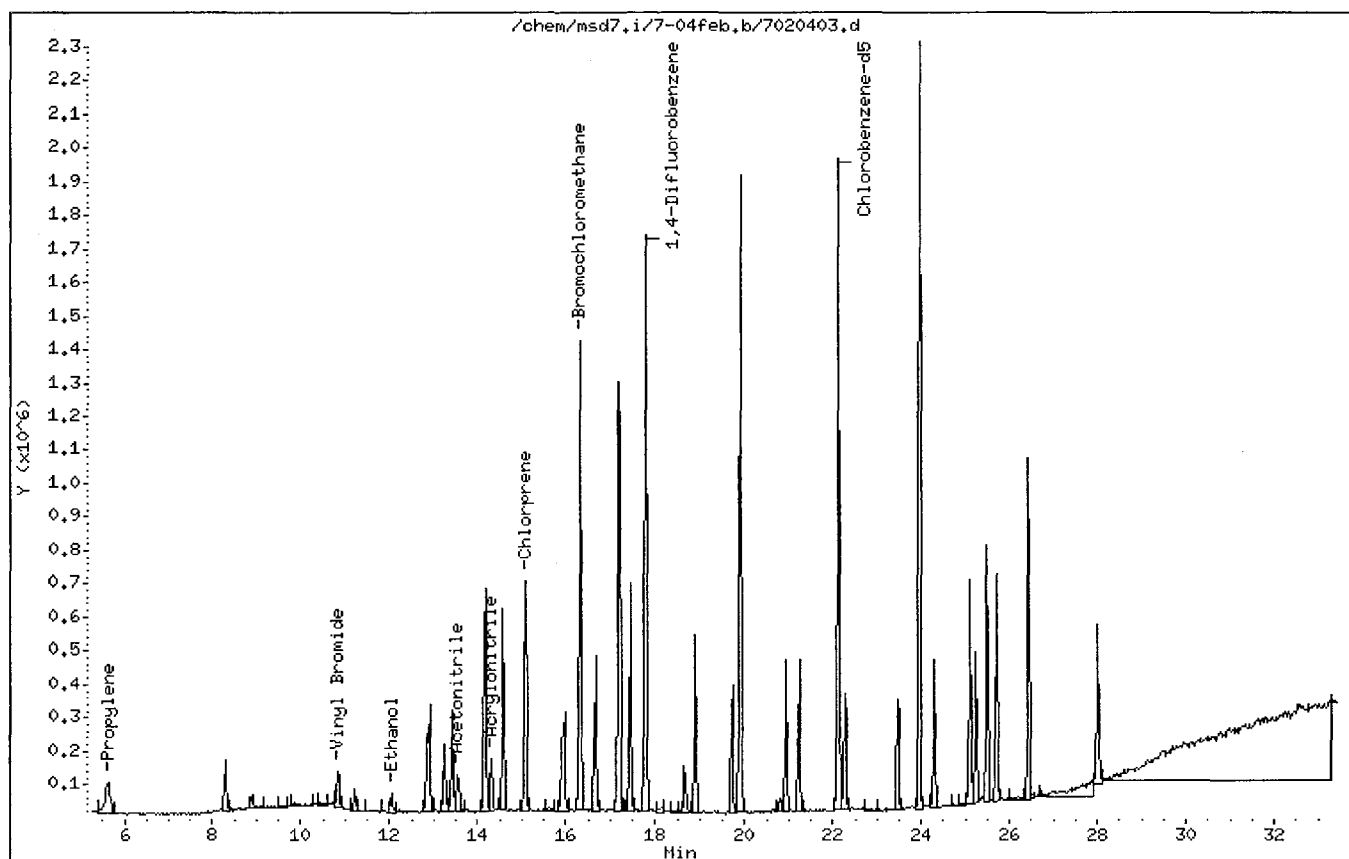
Instrument: msd7.i

Sample Info: #1243-163 [200ppbv]

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0757

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020216.d
Lab Smp Id: Retek ICAL Client Smp ID: Level 3
Inj Date : 02-FEB-2005 22:44
Operator : WW Inst ID: msd7.i
Smp Info : #12343-99A Can#4154
Misc Info : 10mL [2.0ppbv]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwong Quant Type: ISTD
Cal Date : 02-FEB-2005 22:44 Cal File: 7020216.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
=====	=====	==	=====	=====	=====		(PPBV)	(PPBV)
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	546626		10.0000	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2535364		10.0000	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1839357		10.0000	
142 Isopentane	57	10.362	10.390	(0.635)	212131		2.00000	1.941
147 2-Methylpentane	71	13.566	13.566	(0.831)	156871		2.00000	1.852
148 2,3-Dimethylpentane	71	16.658	16.686	(0.936)	100909		2.00000	2.013
143 Isooctane	56	17.183	17.183	(1.052)	327098		2.00000	1.908
144 Thiophene	84	17.542	17.542	(0.986)	274480		1.46000	1.428(T)
145 Indan	117	26.324	26.324	(1.190)	776498		2.00000	2.119
146 Indene	115	26.738	26.738	(1.208)	672240		2.00000	2.147(T)
74 Naphthalene	128	29.969	29.969	(1.354)	812736		0.96000	1.077

QC Flag Legend

T - Target compound detected outside RT window.

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Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 02-FEB-2005
Lab File ID: 7020216.d	Calibration Time: 23:37
Lab Smp Id: Retek ICAL	Client Smp ID: Level 3
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m	
Misc Info: 10mL [2.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	546626	-2.09
38 1,4-Difluorobenze	2615588	1569353	3661823	2535364	-3.07
54 Chlorobenzene-d5	1815836	1089502	2542170	1839357	1.30

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
 AREA LOWER LIMIT = - 40% of internal standard area.
 RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

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Date : 02-FEB-2005 22:44

Client ID: Level 3

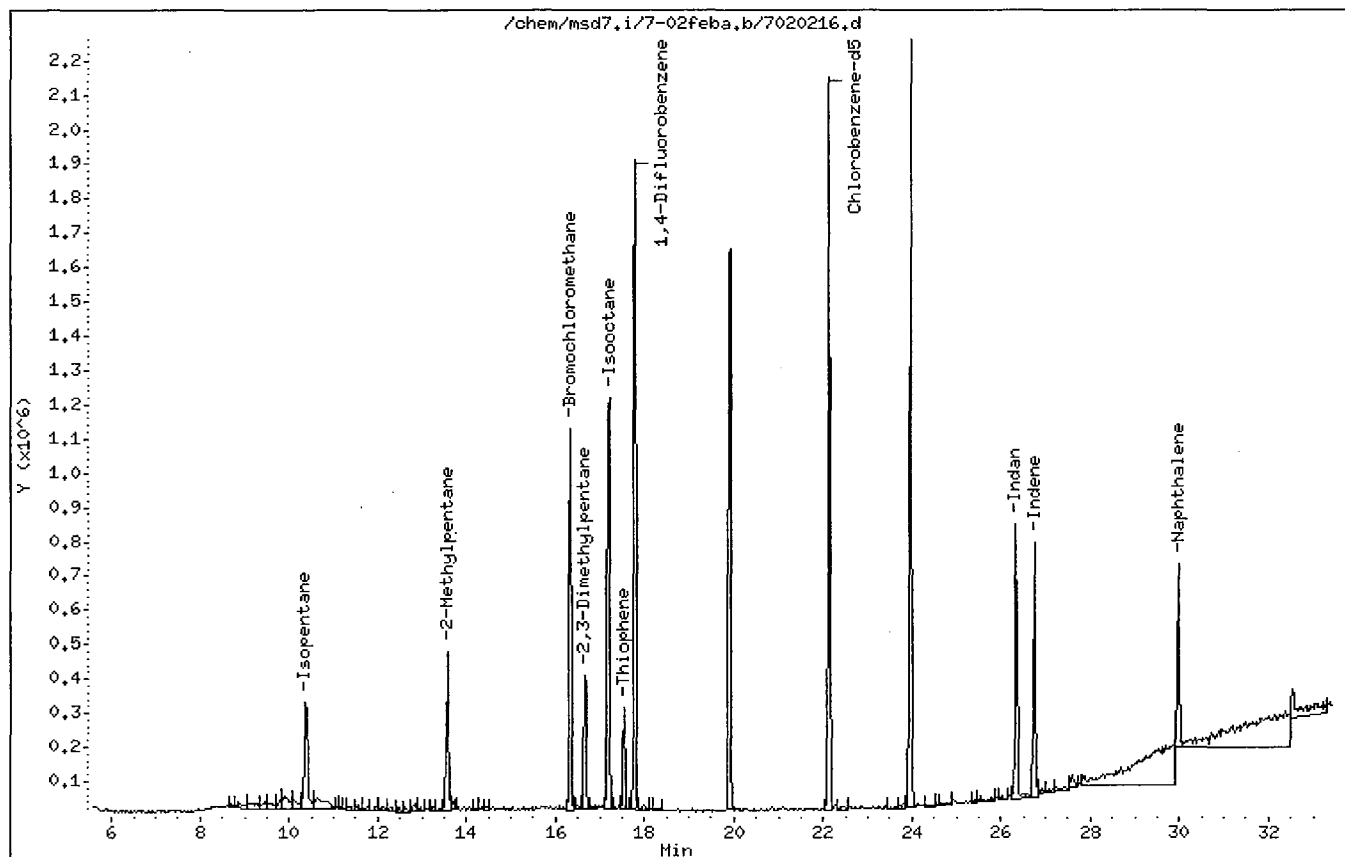
Instrument: msd7.i

Sample Info: #12343-99A Can#4154

Operator: MN

Column phase: RTX-624

Column diameter: 0.32



0760

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-31jan.b/7013105.d
Lab Smp Id: Level 3 Client Smp ID: Level 3
Inj Date : 31-JAN-2005 17:10
Operator : NK Inst ID: msd7.i
Smp Info : #1243-159[2.0ppbv]
Misc Info : 2.0ppbv[500ml]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:40 wwrong Quant Type: ISTD
Cal Date : 04-FEB-2005 05:45 Cal File: 7020403.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
		CAL-AMT		ON-COL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.327	16.327	(1.000)	130	569487	10.0000		50.00- 150.00	100.00	
16.327	16.327	(1.000)	128	442758			27.77- 127.77	77.75	
16.327	16.327	(1.000)	49	995147			130.90- 230.90	174.74	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.791	17.791	(1.000)	114	2631230	10.0000		50.00- 150.00	100.00	
17.791	17.791	(1.000)	88	446891			0.00- 67.37	16.98	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.126	22.126	(1.000)	117	1884472	10.0000		50.00- 150.00	100.00	
22.126	22.126	(1.000)	82	1129864			9.95- 109.95	59.96	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.211	17.211	(1.054)	65	1120102	10.0000	9.550	50.00- 150.00	100.00	
17.211	17.211	(1.054)	67	549488			0.17- 100.17	49.06	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.917	19.917	(1.120)	98	2237515	10.0000	9.967	50.00- 150.00	100.00	
19.917	19.889	(1.120)	70	263569			0.00- 62.02	11.78	

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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	----	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.917	19.917	(1.120)	100	1587669			22.07- 122.07	70.96

\$ 63 Bromofluorobenzene CAS #: 460-00-4								
23.949	23.949	(1.082)	174	970965	10.0000	9.974	50.00- 150.00	100.00
23.949	23.949	(1.082)	95	1481339			106.39- 206.39	152.56
23.976	23.977	(1.084)	176	921676			46.50- 146.50	94.92

1 Dichlorodifluoromethane/Fr12 CAS #: 75-71-8								
5.944	5.944	(0.364)	85	876100	2.00000	1.898	50.00- 150.00	100.00
5.944	5.944	(0.364)	87	278716			0.00- 78.70	31.81

3 Freon 114 CAS #: 76-14-2								
7.048	7.048	(0.432)	135	503488	2.00000	1.964	50.00- 150.00	100.00
7.076	7.048	(0.433)	137	152443			0.00- 81.73	30.28

4 Chloromethane CAS #: 74-87-3								
7.352	7.352	(0.450)	50	280547	2.00000	2.108	50.00- 150.00	100.00
7.352	7.352	(0.450)	52	86566			0.00- 84.65	30.86

6 Vinyl Chloride CAS #: 75-01-4								
8.070	8.070	(0.494)	62	273526	2.00000	1.877	50.00- 150.00	100.00
8.070	8.070	(0.494)	64	84455			0.00- 79.81	30.88

7 1,3-Butadiene CAS #: 106-99-0								
8.291	8.291	(0.508)	54	235759	2.00000	1.943	50.00- 150.00	100.00
8.291	8.291	(0.508)	39	230925			48.03- 148.03	97.95

8 Bromomethane CAS #: 74-83-9								
9.727	9.727	(0.596)	94	191082	1.78000	1.631	50.00- 150.00	100.00
9.727	9.727	(0.596)	96	180441			40.37- 140.37	94.43

9 Chloroethane CAS #: 75-00-3								
10.224	10.224	(0.626)	64	107673	1.68000	1.551	50.00- 150.00	100.00
10.224	10.224	(0.626)	66	34054			0.00- 83.15	31.63

10 Trichlorofluoromethane/Fr11 CAS #: 75-69-4								
11.052	11.053	(0.677)	101	775455	2.00000	1.932	50.00- 150.00	100.00(H)
11.052	11.053	(0.677)	103	495098			14.55- 114.55	63.85

12 Ethanol CAS #: 64-17-5								
12.047	12.047	(0.738)	45	71665	2.00000	1.471	50.00- 150.00	100.00
12.047	12.047	(0.738)	43	12782			0.00- 69.09	17.84
12.047	12.047	(0.738)	46	26688			0.00- 87.02	37.24

15 Freon 113 CAS #: 76-13-1								
12.544	12.544	(0.768)	151	323539	2.00000	1.950	50.00- 150.00	100.00

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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 113 (continued)								
12.544	12.544	(0.768)	153	198944			10.02- 110.02	61.49
12.544	12.544	(0.768)	101	440463			83.72- 183.72	136.14

14 1,1-Dichloroethene						CAS #: 75-35-4		
12.516	12.516	(0.767)	98	157744	2.00000	1.932	50.00- 150.00	100.00
12.516	12.516	(0.767)	61	456017			236.35- 336.35	289.09
12.516	12.516	(0.767)	96	264795			123.22- 223.22	167.86

16 Acetone						CAS #: 67-64-1		
12.847	12.848	(0.787)	43	635669	2.00000	2.118	50.00- 150.00	100.00
12.847	12.848	(0.787)	58	184672			0.00- 78.78	29.05

17 Carbon Disulfide						CAS #: 75-15-0		
12.903	12.903	(0.790)	76	734118	2.00000	1.970	50.00- 150.00	100.00

18 2-Propanol						CAS #: 67-63-0		
13.234	13.234	(0.811)	45	527579	2.00000	1.860	50.00- 150.00	100.00
13.234	13.234	(0.811)	43	108182			0.00- 69.75	20.51
13.234	13.234	(0.811)	59	19265			0.00- 53.72	3.65

20 Methylene Chloride						CAS #: 75-09-2		
13.731	13.731	(0.841)	84	223382	2.00000	1.881	50.00- 150.00	100.00
13.731	13.731	(0.841)	49	330563			95.37- 195.37	147.98
13.731	13.731	(0.841)	51	90958			0.00- 93.42	40.72

21 MTBE						CAS #: 1634-04-4		
14.145	14.145	(0.866)	73	656019	2.00000	1.989	50.00- 150.00	100.00
14.145	14.145	(0.866)	57	160647			0.00- 73.89	24.49
14.145	14.145	(0.866)	41	155341			0.00- 73.24	23.68

22 trans-1,2-Dichloroethene						CAS #: 156-60-5		
14.173	14.173	(0.868)	98	182114	2.00000	2.067	50.00- 150.00	100.00
14.173	14.173	(0.868)	61	441459			191.91- 291.91	242.41
14.173	14.173	(0.868)	96	269956			105.43- 205.43	148.23

24 Hexane						CAS #: 110-54-3		
14.560	14.560	(0.892)	57	443926	2.00000	1.973	50.00- 150.00	100.00
14.560	14.560	(0.892)	43	288286			15.23- 115.23	64.94
14.560	14.560	(0.892)	86	68052			0.00- 65.23	15.33

25 1,1-Dichloroethane						CAS #: 75-34-3		
15.001	15.002	(0.919)	63	459080	2.00000	1.888	50.00- 150.00	100.00
15.001	15.002	(0.919)	65	145748			0.00- 79.39	31.75

26 Vinyl Acetate						CAS #: 108-05-4		
15.057	15.057	(0.922)	43	127239	2.00000	1.916	50.00- 150.00	100.00

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AMOUNTS									
					CAL-AMT	ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
---	-----	-----	----	-----	-----	-----	-----	-----	-----
26 Vinyl Acetate (continued)									
15.057	15.057	(0.922)	42	11560			0.00-	59.40	9.09
15.057	15.057	(0.922)	86	5569			0.00-	58.65	4.38

27 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.940	15.940	(0.976)	98	158883	2.00000	1.929	50.00-	150.00	100.00
15.940	15.940	(0.976)	61	447739			236.20-	336.20	281.80
15.940	15.940	(0.976)	96	239043			126.85-	226.85	150.45

28 2-Butanone						CAS #:	78-93-3		
15.968	15.968	(0.978)	72	148947	2.00000	1.996	50.00-	150.00	100.00
15.968	15.968	(0.978)	43	1511795			985.71-	1085.71	1014.99
15.968	15.968	(0.978)	57	56944			0.00-	89.21	38.23

23 Tetrahydrofuran						CAS #:	109-99-9		
16.327	16.327	(1.000)	42	333222	2.00000	1.931	50.00-	150.00	100.00
16.327	16.327	(1.000)	71	117766			0.00-	84.00	35.34
16.327	16.327	(1.000)	72	124737			0.00-	86.54	37.43

30 Chloroform						CAS #:	67-66-3		
16.410	16.410	(1.005)	83	539466	2.00000	1.980	50.00-	150.00	100.00
16.410	16.410	(1.005)	85	350950			13.79-	113.79	65.06

31 Cyclohexane						CAS #:	110-82-7		
16.658	16.658	(1.020)	84	246072	2.00000	1.978	50.00-	150.00	100.00
16.658	16.658	(1.020)	56	362317			93.37-	193.37	147.24
16.658	16.658	(1.020)	41	207162			30.80-	130.80	84.19

32 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.658	16.658	(1.020)	97	452612	2.00000	2.028	50.00-	150.00	100.00
16.658	16.658	(1.020)	99	292603			15.31-	115.31	64.65

33 Carbon Tetrachloride						CAS #:	56-23-5		
16.879	16.879	(1.034)	119	384896	2.00000	1.882	50.00-	150.00	100.00
16.879	16.879	(1.034)	117	437698			60.43-	160.43	113.72

35 Benzene						CAS #:	71-43-2		
17.211	17.211	(0.967)	78	725247	2.00000	1.899	50.00-	150.00	100.00
17.211	17.211	(0.967)	77	161759			0.00-	72.07	22.30

36 1,2-Dichloroethane						CAS #:	107-06-2		
17.321	17.321	(0.974)	62	380251	2.00000	2.048	50.00-	150.00	100.00
17.321	17.321	(0.974)	64	115867			0.00-	81.56	30.47

37 Heptane						CAS #:	142-82-5		
17.432	17.432	(0.980)	43	446584	2.00000	2.003	50.00-	150.00	100.00

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AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	----	=====	=====	=====	=====	=====	
37 Heptane (continued)									
17.432	17.432	(0.980)	57	232087			1.42- 101.42	51.97	
17.432	17.459	(0.980)	100	75957			0.00- 66.93	17.01	

39 Trichloroethene						CAS #: 79-01-6			
18.150	18.150	(1.020)	130	276317	2.00000	2.060	50.00- 150.00	100.00	
18.150	18.150	(1.020)	95	319170			66.40- 166.40	115.51	
18.150	18.150	(1.020)	97	191944			23.45- 123.45	69.47	

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.536	18.536	(1.042)	63	222761	2.00000	2.026	50.00- 150.00	100.00	
18.536	18.536	(1.042)	62	154100			15.34- 115.34	69.18	
18.536	18.536	(1.042)	41	207653			49.61- 149.61	93.22	

41 1,4-Dioxane						CAS #: 123-91-1			
18.674	18.674	(1.050)	88	154907	2.00000	1.984	50.00- 150.00	100.00	
18.647	18.647	(1.048)	58	118687			30.18- 130.18	76.62	
18.674	18.647	(1.050)	57	41362			0.00- 75.47	26.70	

42 Bromodichloromethane						CAS #: 75-27-4			
18.895	18.895	(1.062)	83	488991	2.00000	1.966	50.00- 150.00	100.00	
18.895	18.895	(1.062)	85	306600			13.56- 113.56	62.70	

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.558	19.558	(1.099)	75	339324	2.00000	2.033	50.00- 150.00	100.00	
19.558	19.558	(1.099)	77	104209			0.00- 85.11	30.71	
19.558	19.558	(1.099)	39	203033			13.92- 113.92	59.83	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.724	19.724	(1.109)	43	477032	2.00000	1.934	50.00- 150.00	100.00	
19.724	19.724	(1.109)	58	180526			0.00- 87.49	37.84	
19.724	19.724	(1.109)	85	80916			0.00- 66.91	16.96	

46 Toluene						CAS #: 108-88-3			
20.000	20.000	(1.124)	91	853343	2.00000	1.950	50.00- 150.00	100.00	
20.000	20.000	(1.124)	92	534230			10.82- 110.82	62.60	

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.386	20.359	(0.921)	75	298100	2.00000	1.870	50.00- 150.00	100.00	
20.386	20.359	(0.921)	77	96159			0.00- 83.15	32.26	
20.359	20.359	(0.920)	39	169241			4.33- 104.33	56.77	

48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.663	20.663	(0.934)	97	256750	2.00000	2.055	50.00- 150.00	100.00	
20.663	20.663	(0.934)	99	161502			15.28- 115.28	62.90	
20.663	20.663	(0.934)	83	204356			30.67- 130.67	79.59	

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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.801	20.801	(0.940)	166	331870	2.00000	2.045	50.00- 150.00	100.00
20.801	20.801	(0.940)	129	249924			25.91- 125.91	75.31
20.801	20.801	(0.940)	131	249510			24.96- 124.96	75.18

50 2-Hexanone						CAS #: 591-78-6		
20.939	20.939	(0.946)	58	243608	2.00000	1.979	50.00- 150.00	100.00
20.939	20.939	(0.946)	43	469792			143.75- 243.75	192.85
20.939	20.939	(0.946)	100	46516			0.00- 68.76	19.09

51 Dibromochloromethane						CAS #: 124-48-1		
21.242	21.243	(0.960)	129	339375	2.00000	1.931	50.00- 150.00	100.00
21.242	21.243	(0.960)	208	14225			0.00- 54.14	4.19

53 1,2-Dibromoethane						CAS #: 106-93-4		
21.463	21.464	(0.970)	107	352346	2.00000	2.048	50.00- 150.00	100.00
21.463	21.464	(0.970)	109	323959			42.42- 142.42	91.94

55 Chlorobenzene						CAS #: 108-90-7		
22.181	22.181	(1.002)	112	540161	2.00000	2.005	50.00- 150.00	100.00
22.181	22.181	(1.002)	114	171230			0.00- 81.53	31.70
22.181	22.181	(1.002)	77	392101			31.06- 131.06	72.59

56 Ethyl Benzene						CAS #: 100-41-4		
22.264	22.264	(1.006)	106	308146	2.00000	1.992	50.00- 150.00	100.00
22.264	22.264	(1.006)	91	1035271			294.68- 394.68	335.97

57 m,p-Xylene						CAS #: 108-38-3		
22.430	22.430	(1.014)	106	365158	2.00000	1.930	50.00- 150.00	100.00
22.430	22.430	(1.014)	91	788503			168.06- 268.06	215.93

58 o-Xylene						CAS #: 95-47-6		
23.065	23.065	(1.042)	106	309381	2.00000	2.008	50.00- 150.00	100.00
23.065	23.065	(1.042)	91	679691			177.70- 277.70	219.69

59 Styrene						CAS #: 100-42-5		
23.093	23.093	(1.044)	104	512911	2.28000	2.150	50.00- 150.00	100.00
23.093	23.093	(1.044)	78	278498			9.03- 109.03	54.30

60 Bromoform						CAS #: 75-25-2		
23.479	23.479	(1.061)	173	233751	2.00000	1.840	50.00- 150.00	100.00
23.479	23.479	(1.061)	171	116086			1.45- 101.45	49.66

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
24.170	24.170	(1.092)	83	347799	2.00000	1.896	50.00- 150.00	100.00
24.170	24.170	(1.092)	85	222415			14.48- 114.48	63.95

0766

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	CAL-AMT	ON-COL	TARGET RANGE
==	=====	=====	====	=====	=====	=====	=====	=====
66 4-Ethyltoluene						CAS #: 622-96-8		
24.473	24.474	(1.106)	105	840841	2.00000	2.048	50.00-	150.00
24.473	24.474	(1.106)	120	224453			0.00-	75.33

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.556	24.556	(1.110)	105	709662	2.00000	1.948	50.00-	150.00
24.556	24.556	(1.110)	120	286677			0.00-	89.49

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.219	25.219	(1.140)	105	678994	2.00000	1.948	50.00-	150.00
25.219	25.219	(1.140)	120	260303			0.00-	88.71

70 1,3-Dichlorobenzene						CAS #: 541-73-1		
25.771	25.771	(1.165)	146	504409	2.00000	2.019	50.00-	150.00
25.771	25.771	(1.165)	148	328778			13.36-	113.36
25.771	25.771	(1.165)	111	216168			0.00-	93.12

71 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.937	25.937	(1.172)	146	525534	2.00000	2.020	50.00-	150.00
25.937	25.937	(1.172)	148	330283			12.91-	112.91
25.937	25.937	(1.172)	111	222555			0.00-	90.99

72 alpha-Chlorotoluene						CAS #: 100-44-7		
26.158	26.158	(1.182)	91	592682	2.00000	2.018	50.00-	150.00
26.158	26.158	(1.182)	126	97189			0.00-	66.94

73 1,2-Dichlorobenzene						CAS #: 95-50-1		
26.600	26.600	(1.202)	146	435688	2.00000	1.960	50.00-	150.00
26.600	26.600	(1.202)	148	280911			13.35-	113.35
26.600	26.600	(1.202)	111	195364			0.00-	94.07

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
29.472	29.472	(1.332)	180	527534	2.54000	2.826	50.00-	150.00
29.472	29.472	(1.332)	182	484713			44.10-	144.10

76 Hexachlorobutadiene						CAS #: 87-68-3		
29.665	29.665	(1.341)	225	378171	2.54000	3.092	50.00-	150.00
29.665	29.665	(1.341)	223	243171			13.94-	113.94

62 Cumene						CAS #: 98-82-8		
23.617	23.617	(1.067)	105	740157	2.00000	1.978	50.00-	150.00
23.617	23.617	(1.067)	120	158810			0.00-	71.87

65 Propylbenzene						CAS #: 103-65-1		
24.280	24.280	(1.097)	91	1016430	2.00000	1.974	50.00-	150.00
24.280	24.280	(1.097)	120	192577			0.00-	69.13

0767

Data File: /chem/msd7.i/7-31jan.b/7013105.d
Report Date: 04-Feb-2005 15:40

Page 8

QC Flag Legend

H - Operator selected an alternate compound hit.

0768

SCOEPA00032440

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 28-JAN-2005
Lab File ID: 7013105.d	Calibration Time: 11:56
Lab Smp Id: Level 3	Client Smp ID: Level 3
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 2.0ppbv[500ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	574395	344637	804153	569487	-0.85
38 1,4-Difluorobenze	2663440	1598064	3728816	2631230	-1.21
54 Chlorobenzene-d5	1877154	1126292	2628016	1884472	0.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0769

SCOEPAA00032441

Date: 31-Jan-2005 17:10

Client ID: Level 3

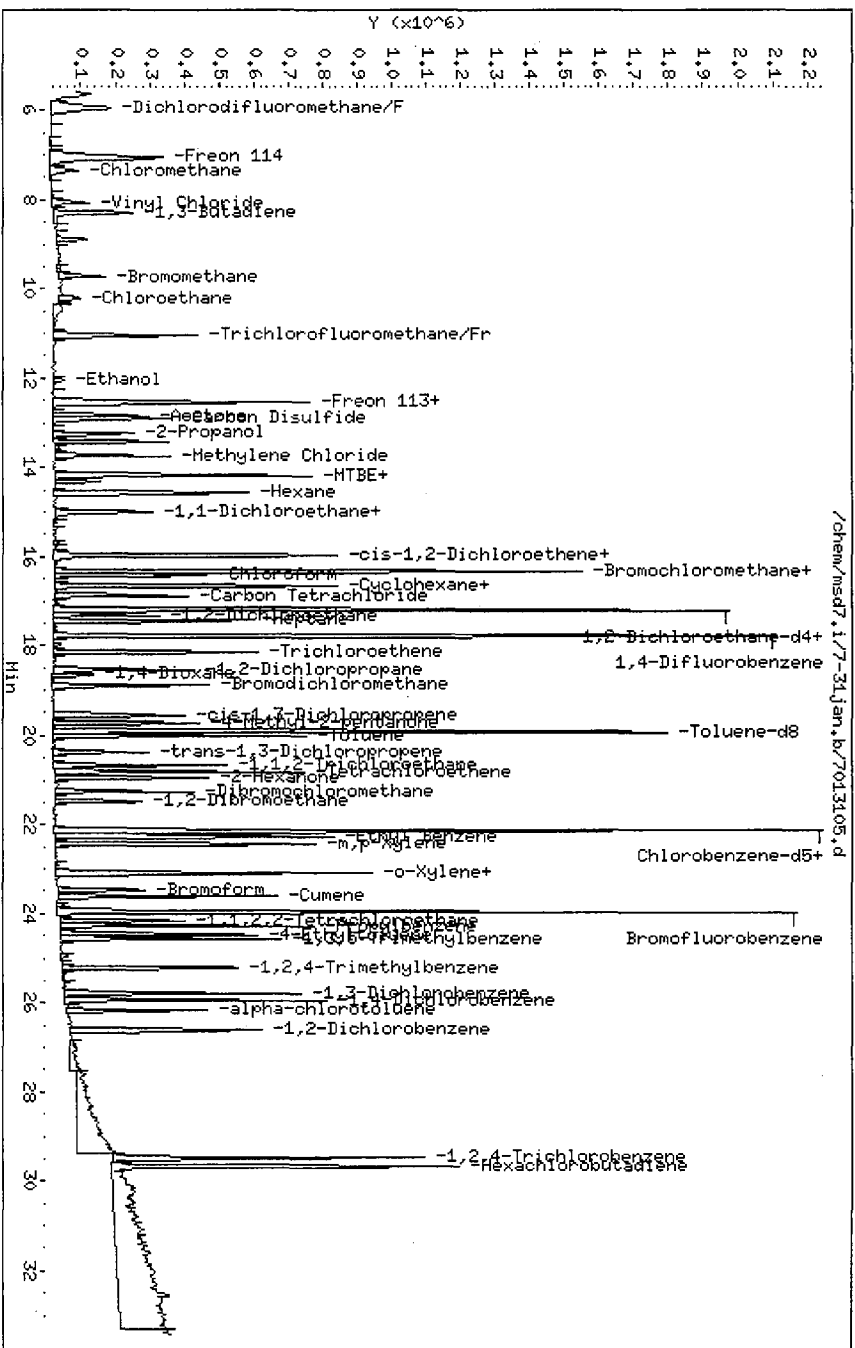
Instrument: msd7.i

Sample Info: #1243-15912.oppbwj

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0770

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020407.d
Lab Smp Id: Level 4 Client Smp ID: Level 4
Inj Date : 04-FEB-2005 11:49
Operator : NK Inst ID: msd7.i
Smp Info : #1243-163[200ppbv]
Misc Info : 5.0ppbv[12.5ml]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 07-Feb-2005 09:27 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Sp6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	536594	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	416609			26.96- 126.96	77.64	
16.303	16.303	(1.000)	49	947716			126.50- 226.50	176.62	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2424171	10.0000		80.00- 120.00	100.00	
17.767	17.767	(1.000)	88	412745			0.00- 67.03	17.03	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1781273	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	1070740			9.26- 109.26	60.11	

2 Propylene						CAS #: 115-07-1			
5.671	5.671	(0.347)	41	582411	5.00000	4.878	80.00- 120.00	100.00	
5.671	5.671	(0.347)	42	395167			19.57- 119.57	67.85	
5.671	5.671	(0.347)	39	400590			24.97- 124.97	68.78	

12 Ethanol						CAS #: 64-17-5			
12.023	12.023	(0.736)	45	240841	5.00000	4.537	80.00- 120.00	100.00	

0771

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
12 Ethanol (continued)									
12.023	12.023	(0.736)	43	45371			0.00-	76.71	18.84
12.023	12.023	(0.736)	46	101528			0.00-	90.17	42.16

152 Acetonitrile						CAS #: 75-05-8			
13.541	13.541	(0.829)	40	267845	5.00000	4.823	80.00-	120.00	100.00
13.541	13.541	(0.829)	41	528880			142.42-	242.42	197.46
13.541	13.541	(0.829)	39	110187			0.00-	90.49	41.14

19 Acrylonitrile						CAS #: 107-13-1			
14.315	14.315	(0.877)	53	462206	5.00000	4.836	80.00-	120.00	100.00
14.315	14.315	(0.877)	52	353988			28.76-	128.76	76.59

151 Chlorprene						CAS #: 126-99-8			
15.088	15.088	(0.924)	53	1759030	5.00000	4.868	80.00-	120.00	100.00
15.088	15.088	(0.924)	88	717026			0.00-	90.01	40.76

149 Vinyl Bromide						CAS #: 593-60-2			
10.835	10.835	(0.663)	106	434557	5.00000	5.257	80.00-	120.00	100.00
10.835	10.835	(0.663)	108	389398			40.24-	140.24	89.61

0772

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 04-FEB-2005
Lab File ID: 7020407.d	Calibration Time: 11:49
Lab Smp Id: Level 4	Client Smp ID: Level 4
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 5.0ppbv[12.5ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	536594	321956	751232	536594	0.00
38 1,4-Difluorobenze	2424171	1454503	3393839	2424171	0.00
54 Chlorobenzene-d5	1781273	1068764	2493782	1781273	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0773

SCOEPAA00032445

Date : 04-FEB-2005 11:49

Client ID: Level 4

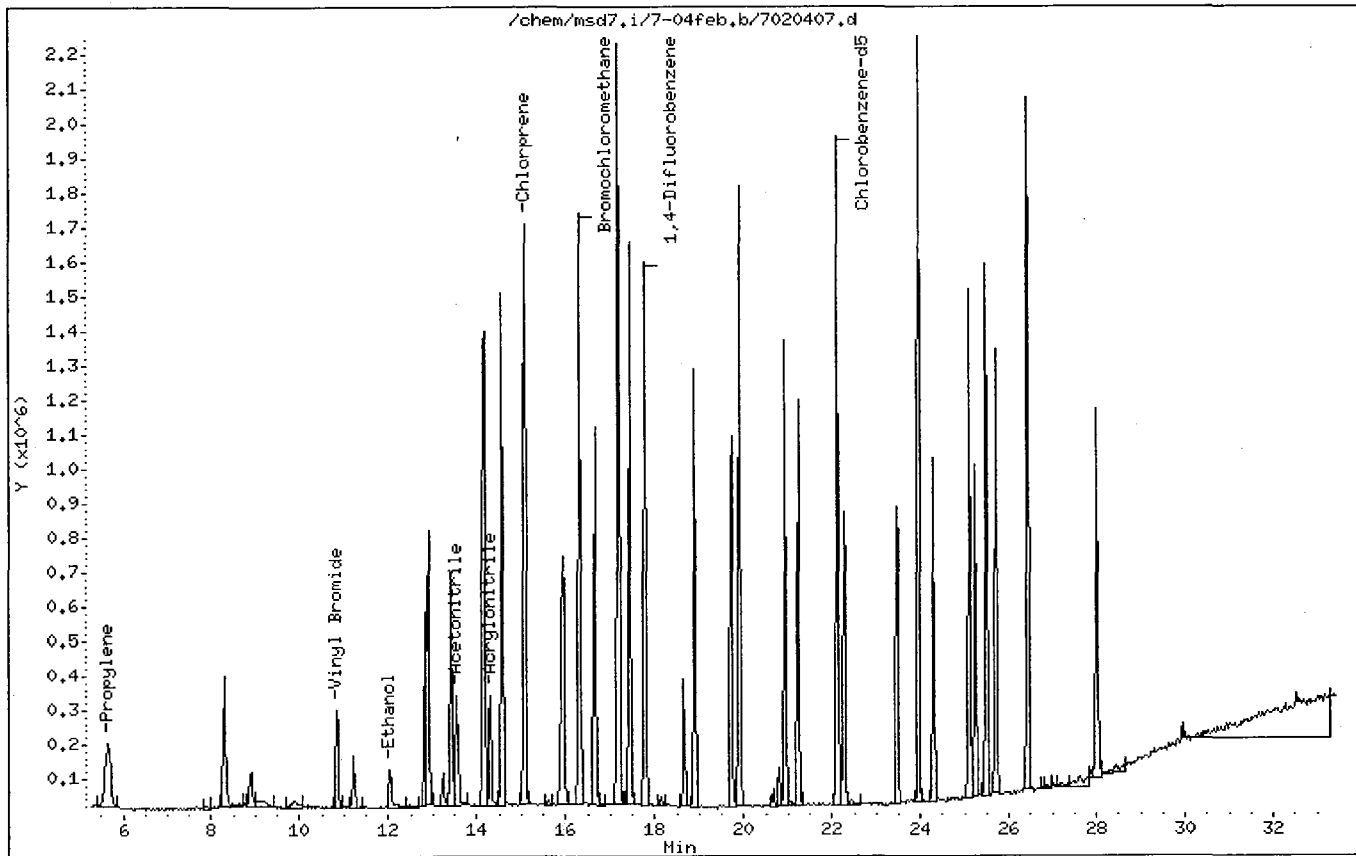
Instrument: msd7.i

Sample Info: #1243-163[200ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0774

SCOEP00032446

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020217.d
Lab Smp Id: Retek ICAL Client Smp ID: Level 4
Inj Date : 02-FEB-2005 23:37
Operator : WW Inst ID: msd7.i
Smp Info : #12343-99A Can#4154
Misc Info : 25mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwrong Quant Type: ISTD
Cal Date : 02-FEB-2005 23:37 Cal File: 7020217.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
						(PPBV)	(PPBV)
=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	558271	10.0000	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2615588	10.0000	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1815836	10.0000	
142 Isopentane	57	10.390	10.390	(0.636)	540942	5.00000	4.845
147 2-Methylpentane	71	13.566	13.566	(0.831)	423848	5.00000	4.900
148 2,3-Dimethylpentane	71	16.686	16.686	(0.938)	251595	5.00000	4.864
143 Isooctane	56	17.183	17.183	(1.052)	823789	5.00000	4.704
144 Thicphene	84	17.542	17.542	(0.986)	696334	3.65000	3.512
145 Indan	117	26.324	26.324	(1.190)	1711001	5.00000	4.730
146 Indene	115	26.738	26.738	(1.208)	1483180	5.00000	4.799
74 Naphthalene	128	29.969	29.969	(1.354)	1741927	2.40000	2.338

0775

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020217.d
Lab Smp Id: Retek ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m
Misc Info: 25mL [5.0ppbv]

Calibration Date: 02-FEB-2005
Calibration Time: 23:37
Client Smp ID: Level 4
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	558271	0.00
38 1,4-Difluorobenze	2615588	1569353	3661823	2615588	0.00
54 Chlorobenzene-d5	1815836	1089502	2542170	1815836	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0776

Data File: /chem/msd7.i/7-02feba,b/7020217.d

Page 1

Date : 02-FEB-2005 23:37

Client ID: Level 4

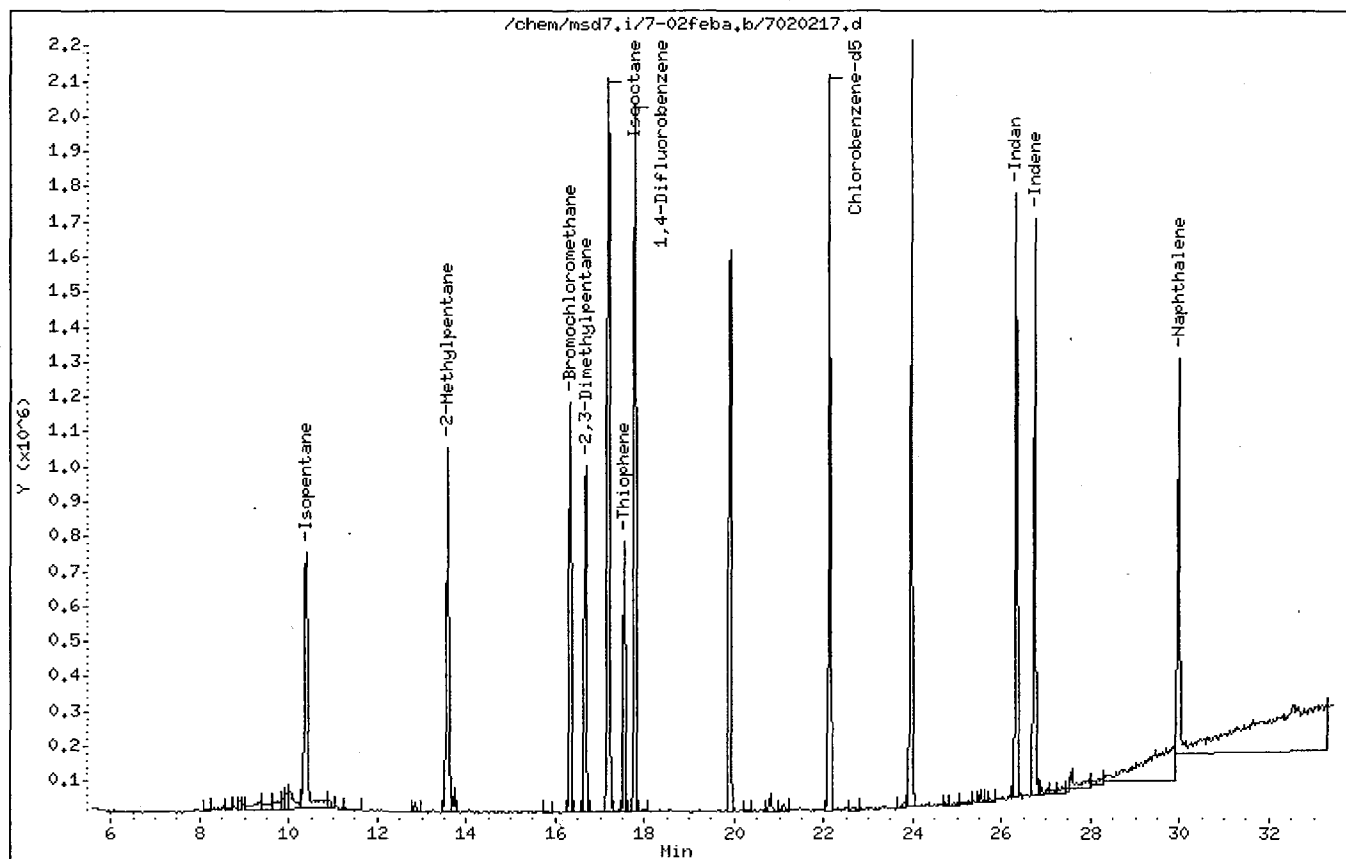
Instrument: msd7.i

Sample Info: #12343-99A Can#4154

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0777

SCOEP00032449

Air Toxics Ltd.

AMBIENT AIR METHOD T014/T015 SIM

Data file : /chem/msd7.i/7-28jan.b/7012803.d
Lab Smp Id: Level 4
Inj Date : 28-JAN-2005 11:56
Operator : jeet
Smp Info : #1243-158 (50ppbv)
Misc Info : 50ml=5ppbv
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:39 wwong
Cal Date : 04-FEB-2005 11:49
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020407.d
Calibration Sample, Level: 4
Compound Sublist: AT-1.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE (PPBV)		(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5			
16.327	16.327	(1.000)	130	574395	10.0000		80.00- 120.00	100.00	
16.327	16.327	(1.000)	128	439204			26.40- 126.40	76.46	
16.327	16.327	(1.000)	49	1029285			126.61- 226.61	179.19	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.791	17.791	(1.000)	114	2663440	10.0000		80.00- 120.00	100.00	
17.791	17.791	(1.000)	88	461634			0.00- 67.33	17.33	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.126	22.126	(1.000)	117	1877154	10.0000		80.00- 120.00	100.00	
22.126	22.126	(1.000)	82	1115912			9.12- 109.12	59.45	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.211	17.211	(1.054)	65	1142342	10.0000	9.656	80.00- 120.00	100.00	
17.211	17.211	(1.054)	67	552047			0.17- 100.17	48.33	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.917	19.917	(1.120)	98	2267619	10.0000	9.979	80.00- 120.00	100.00	
19.889	19.889	(1.118)	70	259744			0.00- 61.45	11.45	

0778

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.917	19.917	(1.120)	100	1616005			21.26- 121.26	71.26

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.949	23.949	(1.082)	174	934267	10.0000	9.634	80.00- 120.00	100.00
23.949	23.949	(1.082)	95	1494203			109.93- 209.93	159.93
23.977	23.977	(1.084)	176	924380			48.94- 148.94	98.94

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.944	5.944	(0.364)	85	2290717	5.00000	4.920	80.00- 120.00	100.00
5.944	5.944	(0.364)	87	725518			0.00- 81.67	31.67

3 Freon 114						CAS #: 76-14-2		
7.048	7.048	(0.432)	135	1337187	5.00000	5.171	80.00- 120.00	100.00
7.048	7.048	(0.432)	137	416123			0.00- 81.73	31.12

4 Chloromethane						CAS #: 74-87-3		
7.352	7.352	(0.450)	50	689684	5.00000	5.138	80.00- 120.00	100.00
7.352	7.352	(0.450)	52	210794			0.00- 84.65	30.56

6 Vinyl Chloride						CAS #: 75-01-4		
8.070	8.070	(0.494)	62	727568	5.00000	4.949	80.00- 120.00	100.00
8.070	8.070	(0.494)	64	220450			0.00- 80.30	30.30

7 1,3-Butadiene						CAS #: 106-99-0		
8.291	8.291	(0.508)	54	636375	5.00000	5.200	80.00- 120.00	100.00
8.291	8.291	(0.508)	39	596349			47.56- 147.56	93.71

8 Bromomethane						CAS #: 74-83-9		
9.727	9.727	(0.596)	94	472260	4.45000	3.996	80.00- 120.00	100.00
9.727	9.727	(0.596)	96	461732			47.77- 147.77	97.77

9 Chloroethane						CAS #: 75-00-3		
10.224	10.224	(0.626)	64	270135	4.20000	3.858	80.00- 120.00	100.00
10.224	10.224	(0.626)	66	82056			0.00- 83.15	30.38

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.053	11.053	(0.677)	101	2051524	5.00000	5.067	80.00- 120.00	100.00(H)
11.053	11.053	(0.677)	103	1308739			13.79- 113.79	63.79

12 Ethanol						CAS #: 64-17-5		
12.047	12.047	(0.738)	45	145806	5.00000	2.786	80.00- 120.00	100.00
12.047	12.047	(0.738)	43	30478			0.00- 76.71	20.90
12.047	12.047	(0.738)	46	63735			0.00- 90.17	43.71

15 Freon 113						CAS #: 76-13-1		
12.544	12.544	(0.768)	151	827727	5.00000	4.946	80.00- 120.00	100.00

0779

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 113 (continued)								
12.544	12.544	(0.768)	153	538286			15.03- 115.03	65.03
12.544	12.544	(0.768)	101	1128811			83.72- 183.72	136.37

14 1,1-Dichloroethene				CAS #: 75-35-4				
12.516	12.516	(0.767)	98	432912	5.00000	5.258	80.00- 120.00	100.00
12.516	12.516	(0.767)	61	1164993			236.36- 336.36	269.11
12.516	12.516	(0.767)	96	665771			123.22- 223.22	153.79

16 Acetone				CAS #: 67-64-1				
12.848	12.848	(0.787)	43	1445734	5.00000	4.776	80.00- 120.00	100.00
12.848	12.848	(0.787)	58	414765			0.00- 78.77	28.69

17 Carbon Disulfide				CAS #: 75-15-0				
12.903	12.903	(0.790)	76	1955874	5.00000	5.203	80.00- 120.00	100.00

18 2-Propanol				CAS #: 67-63-0				
13.234	13.234	(0.811)	45	1325871	5.00000	4.637	80.00- 120.00	100.00
13.234	13.234	(0.811)	43	258158			0.00- 69.88	19.47
13.234	13.234	(0.811)	59	51385			0.00- 53.72	3.88

20 Methylene Chloride				CAS #: 75-09-2				
13.731	13.731	(0.841)	84	559747	5.00000	4.673	80.00- 120.00	100.00
13.731	13.731	(0.841)	49	842899			100.59- 200.59	150.59
13.731	13.731	(0.841)	51	249179			0.00- 93.42	44.52

21 MTBE				CAS #: 1634-04-4				
14.145	14.145	(0.866)	73	1726154	5.00000	5.184	80.00- 120.00	100.00
14.145	14.145	(0.866)	57	403907			0.00- 73.87	23.40
14.145	14.145	(0.866)	41	406309			0.00- 73.22	23.54

22 trans-1,2-Dichloroethene				CAS #: 156-60-5				
14.173	14.173	(0.868)	98	447507	5.00000	5.036	80.00- 120.00	100.00
14.173	14.173	(0.868)	61	1094484			191.91- 291.91	244.57
14.173	14.173	(0.868)	96	714304			105.43- 205.43	159.62

24 Hexane				CAS #: 110-54-3				
14.560	14.560	(0.892)	57	1141900	5.00000	5.031	80.00- 120.00	100.00
14.560	14.560	(0.892)	43	741075			15.23- 115.23	64.90
14.560	14.560	(0.892)	86	174578			0.00- 65.23	15.29

25 1,1-Dichloroethane				CAS #: 75-34-3				
15.002	15.002	(0.919)	63	1214311	5.00000	4.951	80.00- 120.00	100.00
15.002	15.002	(0.919)	65	366673			0.00- 80.20	30.20

26 Vinyl Acetate				CAS #: 108-05-4				
15.057	15.057	(0.922)	43	147201	5.00000	2.192	80.00- 120.00	100.00

0780

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
26 Vinyl Acetate (continued)								
15.057	15.057	(0.922)	42	15189			0.00- 59.38	10.32
15.057	15.057	(0.922)	86	15597			0.00- 58.64	10.60

27 cis-1,2-Dichloroethene						CAS #: 156-59-2		
15.940	15.940	(0.976)	98	409897	5.00000	4.935	80.00- 120.00	100.00
15.940	15.940	(0.976)	61	1181799			238.32- 338.32	288.32
15.940	15.940	(0.976)	96	640041			106.15- 206.15	156.15

28 2-Butanone						CAS #: 78-93-3		
15.968	15.968	(0.978)	72	381327	5.00000	5.066	80.00- 120.00	100.00
15.968	15.968	(0.978)	43	3997538			998.32-1098.32	1048.32
15.968	15.968	(0.978)	57	144813			0.00- 89.21	37.98

23 Tetrahydrofuran						CAS #: 109-99-9		
16.327	16.327	(1.000)	42	839366	5.00000	9.081	80.00- 120.00	100.00
16.327	16.327	(1.000)	71	288549			0.00- 84.38	34.38
16.327	16.327	(1.000)	72	316983			0.00- 60.36	37.76

30 Chloroform						CAS #: 67-66-3		
16.410	16.410	(1.005)	83	1394612	5.00000	5.076	80.00- 120.00	100.00
16.410	16.410	(1.005)	85	901968			14.68- 114.68	64.68

31 Cyclohexane						CAS #: 110-82-7		
16.658	16.658	(1.020)	84	666493	5.00000	5.311	80.00- 120.00	100.00
16.658	16.658	(1.020)	56	913315			93.37- 193.37	137.03
16.658	16.658	(1.020)	41	527868			30.80- 130.80	79.20

32 1,1,1-Trichloroethane						CAS #: 71-55-6		
16.658	16.658	(1.020)	97	1154930	5.00000	5.130	80.00- 120.00	100.00
16.658	16.658	(1.020)	99	740522			14.12- 114.12	64.12

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.879	16.879	(1.034)	119	1005271	5.00000	4.874	80.00- 120.00	100.00
16.879	16.879	(1.034)	117	1146960			64.09- 164.09	114.09

35 Benzene						CAS #: 71-43-2		
17.211	17.211	(0.967)	78	1861962	5.00000	4.817	80.00- 120.00	100.00
17.211	17.211	(0.967)	77	413688			0.00- 72.07	22.22

36 1,2-Dichloroethane						CAS #: 107-06-2		
17.321	17.321	(0.974)	62	978387	5.00000	5.205	80.00- 120.00	100.00
17.321	17.321	(0.974)	64	311858			0.00- 81.56	31.87

37 Heptane						CAS #: 142-82-5		
17.432	17.432	(0.980)	43	1188068	5.00000	5.264	80.00- 120.00	100.00

0781

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
---	-----	-----	-----	-----	-----	-----	-----	-----	
37 Heptane (continued)									
17.432	17.432	(0.980)	57	620735			1.42-	101.42	52.25
17.459	17.459	(0.981)	100	200968			0.00-	66.93	16.92

39 Trichloroethene						CAS #: 79-01-6			
18.150	18.150	(1.020)	130	741789	5.00000	5.464	80.00-	120.00	100.00
18.150	18.150	(1.020)	95	799834			66.40-	166.40	107.83
18.150	18.150	(1.020)	97	520636			23.45-	123.45	70.19

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.536	18.536	(1.042)	63	579784	5.00000	5.209	80.00-	120.00	100.00
18.536	18.536	(1.042)	62	396518			18.39-	118.39	68.39
18.536	18.536	(1.042)	41	436354			25.26-	125.26	75.26

41 1,4-Dioxane						CAS #: 123-91-1			
18.674	18.674	(1.050)	88	416153	5.00000	5.264	80.00-	120.00	100.00
18.647	18.647	(1.048)	58	324871			28.07-	128.07	78.07
18.647	18.647	(1.048)	57	106193			0.00-	75.47	25.52

42 Bromodichloromethane						CAS #: 75-27-4			
18.895	18.895	(1.062)	83	1331220	5.00000	5.287	80.00-	120.00	100.00
18.895	18.895	(1.062)	85	865583			15.02-	115.02	65.02

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.558	19.558	(1.099)	75	885084	5.00000	5.238	80.00-	120.00	100.00
19.558	19.558	(1.099)	77	282924			0.00-	81.97	31.97
19.558	19.558	(1.099)	39	574732			14.94-	114.94	64.94

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.724	19.724	(1.109)	43	1325943	5.00000	5.309	80.00-	120.00	100.00
19.724	19.724	(1.109)	58	489138			0.00-	87.48	36.89
19.724	19.724	(1.109)	85	207658			0.00-	66.91	15.66

46 Toluene						CAS #: 108-88-3			
20.000	20.000	(1.124)	91	2218268	5.00000	5.009	80.00-	120.00	100.00
20.000	20.000	(1.124)	92	1345967			10.68-	110.68	60.68

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.359	20.359	(0.920)	75	826311	5.00000	5.205	80.00-	120.00	100.00
20.359	20.359	(0.920)	77	258985			0.00-	81.34	31.34
20.359	20.359	(0.920)	39	445136			3.87-	103.87	53.87

48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.663	20.663	(0.934)	97	673134	5.00000	5.409	80.00-	120.00	100.00
20.663	20.663	(0.934)	99	414085			11.52-	111.52	61.52
20.663	20.663	(0.934)	83	538062			29.93-	129.93	79.93

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AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.801	20.801	(0.940)	166	862318	5.00000	5.335	80.00- 120.00	100.00
20.801	20.801	(0.940)	129	674702			28.24- 128.24	78.24
20.801	20.801	(0.940)	131	637456			23.92- 123.92	73.92
50 2-Hexanone						CAS #: 591-78-6		
20.939	20.939	(0.946)	58	655706	5.00000	5.347	80.00- 120.00	100.00
20.939	20.939	(0.946)	43	1261532			142.39- 242.39	192.39
20.939	20.939	(0.946)	100	117857			0.00- 68.76	17.97
51 Dibromochloromethane						CAS #: 124-48-1		
21.243	21.243	(0.960)	129	937850	5.00000	5.356	80.00- 120.00	100.00
21.243	21.243	(0.960)	208	49373			0.00- 54.14	5.26
53 1,2-Dibromoethane						CAS #: 106-93-4		
21.464	21.464	(0.970)	107	920055	5.00000	5.369	80.00- 120.00	100.00
21.464	21.464	(0.970)	109	872827			44.87- 144.87	94.87
55 Chlorobenzene						CAS #: 108-90-7		
22.181	22.181	(1.002)	112	1404152	5.00000	5.233	80.00- 120.00	100.00
22.181	22.181	(1.002)	114	451107			0.00- 82.13	32.13
22.181	22.181	(1.002)	77	950547			17.70- 117.70	67.70
56 Ethyl Benzene						CAS #: 100-41-4		
22.264	22.264	(1.006)	106	798070	5.00000	5.178	80.00- 120.00	100.00
22.264	22.264	(1.006)	91	2662953			294.78- 394.78	333.67
57 m,p-Xylene						CAS #: 108-38-3		
22.430	22.430	(1.014)	106	981839	5.00000	5.209	80.00- 120.00	100.00
22.430	22.430	(1.014)	91	2094436			167.96- 267.96	213.32
58 o-Xylene						CAS #: 95-47-6		
23.065	23.065	(1.042)	106	808905	5.00000	5.269	80.00- 120.00	100.00
23.065	23.065	(1.042)	91	1826045			175.74- 275.74	225.74
59 Styrene						CAS #: 100-42-5		
23.093	23.093	(1.044)	104	1439398	5.70000	6.057	80.00- 120.00	100.00
23.093	23.093	(1.044)	78	798413			5.47- 105.47	55.47
60 Bromoform						CAS #: 75-25-2		
23.479	23.479	(1.061)	173	696029	5.00000	5.501	80.00- 120.00	100.00
23.479	23.479	(1.061)	171	356583			1.23- 101.23	51.23
64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
24.170	24.170	(1.092)	83	966656	5.00000	5.289	80.00- 120.00	100.00
24.170	24.170	(1.092)	85	623420			14.49- 114.49	64.49

0783

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
66 4-Ethyltoluene						CAS #: 622-96-8			
24.474	24.474	(1.106)	105	2077390	5.00000	5.079	80.00- 120.00	100.00	
24.474	24.474	(1.106)	120	511016			0.00- 74.60	24.60	
67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.556	24.556	(1.110)	105	1869710	5.00000	5.152	80.00- 120.00	100.00	
24.556	24.556	(1.110)	120	741575			0.00- 89.66	39.66	
69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.219	25.219	(1.140)	105	1751313	5.00000	5.055	80.00- 120.00	100.00	
25.219	25.219	(1.140)	120	660539			0.00- 87.72	37.72	
70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.771	25.771	(1.165)	146	1221618	5.00000	4.909	80.00- 120.00	100.00	
25.771	25.771	(1.165)	148	767764			13.36- 113.36	62.85	
25.771	25.771	(1.165)	111	523098			0.00- 93.12	42.82	
71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.937	25.937	(1.172)	146	1238777	5.00000	4.779	80.00- 120.00	100.00	
25.937	25.937	(1.172)	148	800681			12.91- 112.91	64.63	
25.937	25.937	(1.172)	111	514993			0.00- 90.99	41.57	
72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.158	26.158	(1.182)	91	1391609	5.00000	4.756	80.00- 120.00	100.00	
26.158	26.158	(1.182)	126	239026			0.00- 66.94	17.18	
73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.600	26.600	(1.202)	146	1037946	5.00000	4.688	80.00- 120.00	100.00	
26.600	26.600	(1.202)	148	668384			14.39- 114.39	64.39	
26.600	26.600	(1.202)	111	469553			0.00- 95.24	45.24	
75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.472	29.472	(1.332)	180	1279407	6.35000	6.879	80.00- 120.00	100.00	
29.472	29.472	(1.332)	182	1188075			42.86- 142.86	92.86	
76 Hexachlorobutadiene						CAS #: 87-68-3			
29.665	29.665	(1.341)	225	762043	6.35000	6.256	80.00- 120.00	100.00	
29.665	29.665	(1.341)	223	476139			13.94- 113.94	62.48	
62 Cumene						CAS #: 98-82-8			
23.617	23.617	(1.067)	105	1942564	5.00000	5.212	80.00- 120.00	100.00	
23.617	23.617	(1.067)	120	410815			0.00- 71.15	21.15	
65 Propylbenzene						CAS #: 103-65-1			
24.280	24.280	(1.097)	91	2613504	5.00000	5.098	80.00- 120.00	100.00	
24.280	24.280	(1.097)	120	511429			0.00- 69.14	19.57	

0784

Data File: /chem/msd7.i/7-28jan.b/7012803.d
Report Date: 04-Feb-2005 15:39

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QC Flag Legend

H - Operator selected an alternate compound hit.

0785

SCOEPA00032457

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7012803.d
Lab Smp Id: Level 4
Analysis Type: VOA
Quant Type: ISTD
Operator: jeet
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 50ml=5ppbv

Calibration Date: 28-JAN-2005
Calibration Time: 11:56
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	574395	344637	804153	574395	0.00
38 1,4-Difluorobenze	2663440	1598064	3728816	2663440	0.00
54 Chlorobenzene-d5	1877154	1126292	2628016	1877154	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

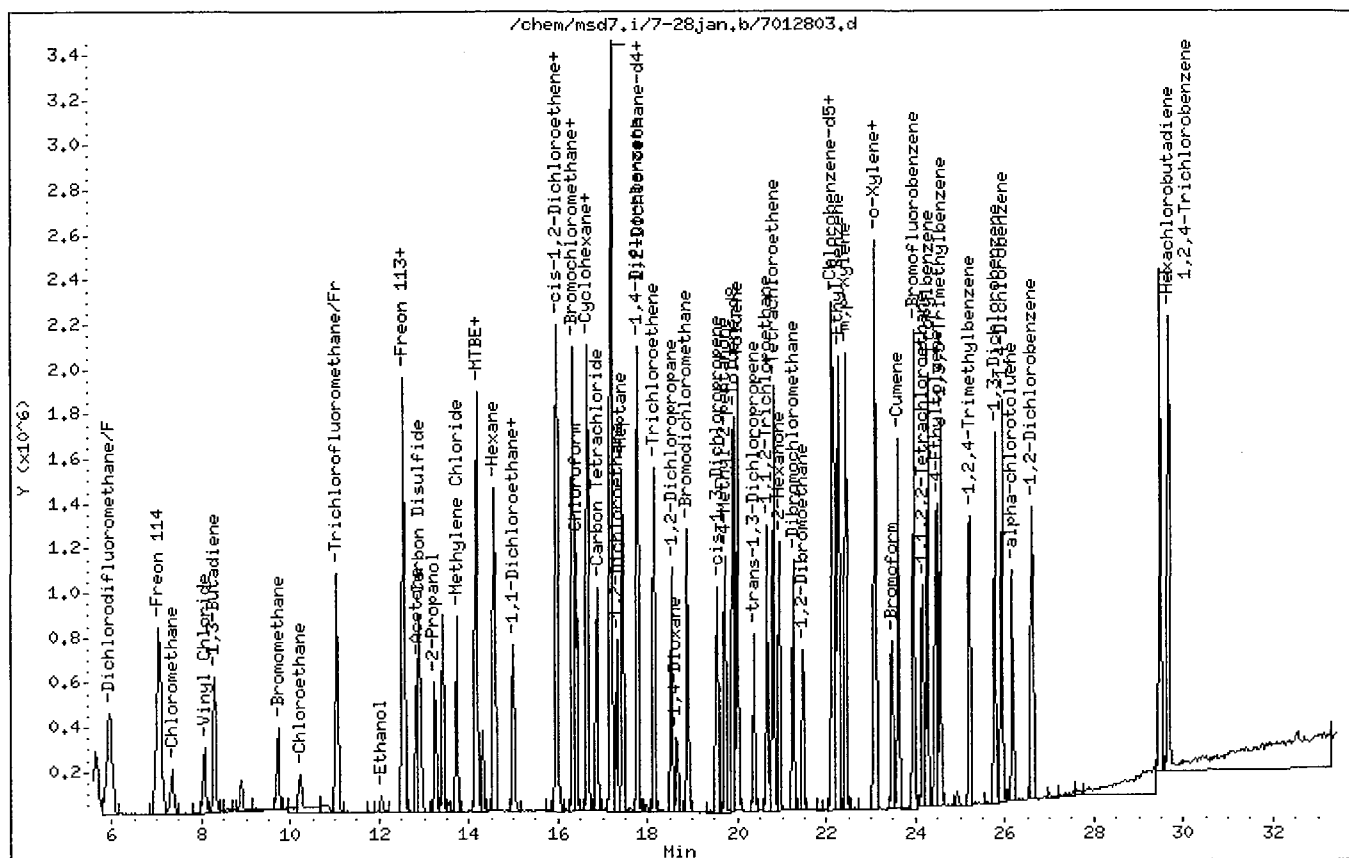
0786

SCOEPAA00032458

Instrument: msd7.i

Operator: jeet

Column diameter: 0.32



0787

SCOEPA00032459

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020404.d
Lab Smp Id: Level 5 Client Smp ID: Level 5
Inj Date : 04-FEB-2005 09:34
Operator : NK Inst ID: msd7.i
Smp Info : #1243-163[200ppbv]
Misc Info : 10ppbv[25ml]
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 07-Feb-2005 09:26 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 09:34 Cal File: 7020404.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Sp6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----	-----	-----
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	548158	10.0000		50.00- 150.00	100.00
16.331	16.331	(1.000)	128	413606			26.96- 126.96	75.45
16.331	16.331	(1.000)	49	942300			126.50- 226.50	171.90

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2433461	10.0000		50.00- 150.00	100.00
17.794	17.794	(1.000)	88	408650			0.00- 67.06	16.79

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1769882	10.0000		50.00- 150.00	100.00
22.130	22.130	(1.000)	82	1058920			9.26- 109.26	59.83

2 Propylene						CAS #: 115-07-1		
5.644	5.671	(0.346)	41	1217221	10.0000	9.980	50.00- 150.00	100.00
5.644	5.671	(0.346)	42	833637			19.57- 119.57	68.49
5.644	5.671	(0.346)	39	875614			24.97- 124.97	71.94

12 Ethanol						CAS #: 64-17-5		
12.050	12.023	(0.738)	45	546733	10.0000	10.082	50.00- 150.00	100.00

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AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
12 Ethanol (continued)									
12.050	12.023	(0.738)	43	111307			0.00- 76.71	20.36	
12.050	12.023	(0.738)	46	211580			0.00- 90.17	38.70	

152 Acetonitrile						CAS #: 75-05-8			
13.542	13.541	(0.829)	40	513941	10.0000	9.059	50.00- 150.00	100.00	
13.542	13.541	(0.829)	41	979528			142.42- 242.42	190.59	
13.542	13.541	(0.829)	39	217749			0.00- 90.49	42.37	

19 Acrylonitrile						CAS #: 107-13-1			
14.315	14.315	(0.877)	53	952463	10.0000	9.755	50.00- 150.00	100.00	
14.315	14.315	(0.877)	52	764873			28.76- 128.76	80.30	

151 Chlorprene						CAS #: 126-99-8			
15.088	15.088	(0.924)	53	3754718	10.0000	10.172	50.00- 150.00	100.00	
15.088	15.088	(0.924)	88	1497450			0.00- 90.01	39.88	

149 Vinyl Bromide						CAS #: 593-60-2			
10.835	10.835	(0.663)	106	883302	10.0000	10.461	50.00- 150.00	100.00	
10.835	10.835	(0.663)	108	779685			40.24- 140.24	88.27	

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Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 04-FEB-2005
Lab File ID: 7020404.d	Calibration Time: 11:49
Lab Smp Id: Level 5	Client Smp ID: Level 5
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 10ppbv[25ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	536594	321956	751232	548158	2.16
38 1,4-Difluorobenze	2424171	1454503	3393839	2433461	0.38
54 Chlorobenzene-d5	1781273	1068764	2493782	1769882	-0.64

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0790

SCOEPA00032462

Date : 04-FEB-2005 09:34

Client ID: Level 5

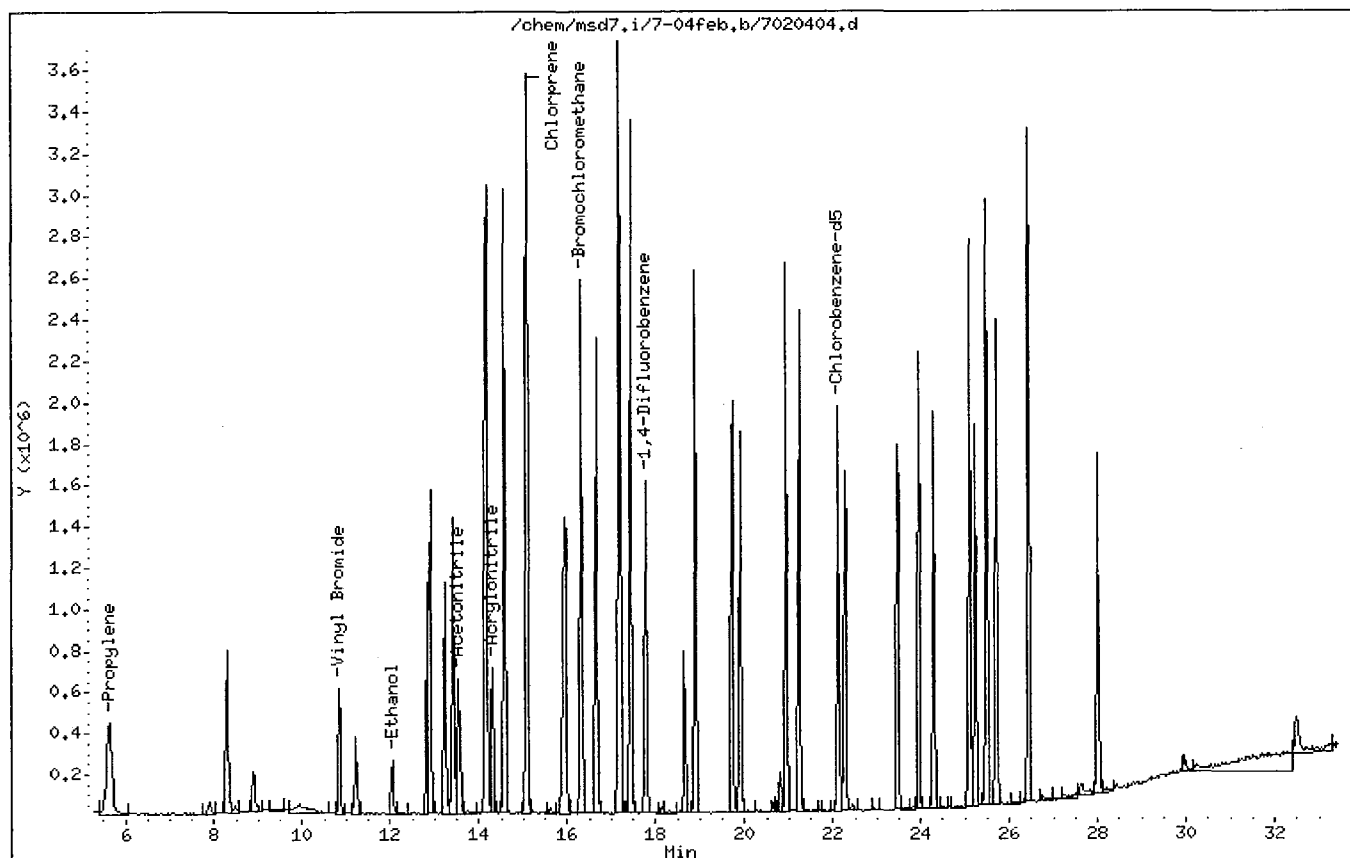
Instrument: msd7.i

Sample Info: #1243-163[200ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0791

SCOEP00032463

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020218.d
Lab Smp Id: Retek ICAL Client Smp ID: Level 5
Inj Date : 03-FEB-2005 01:36
Operator : WW Inst ID: msd7.i
Smp Info : #12343-99A Can#4154
Misc Info : 50mL [10.0ppbv]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwrong Quant Type: ISTD
Cal Date : 03-FEB-2005 01:36 Cal File: 7020218.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
	=====	==	=====	=====	=====		(PPBV)	(PPBV)
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	572529		10.0000	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2672286		10.0000	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1701574		10.0000	
142 Isopentane	57	10.390	10.390	(0.636)	1357810		10.0000	11.860
147 2-Methylpentane	71	13.593	13.566	(0.833)	937229		10.0000	10.565
148 2,3-Dimethylpentane	71	16.686	16.686	(0.938)	575810		10.0000	10.897
143 Isooctane	56	17.183	17.183	(1.052)	1852904		10.0000	10.317
144 Thiophene	84	17.542	17.542	(0.986)	1609459		7.30000	7.946
145 Indan	117	26.324	26.324	(1.190)	3454000		10.0000	10.190
146 Indene	115	26.738	26.738	(1.208)	2941578		10.0000	10.158
74 Naphthalene	128	29.969	29.969	(1.354)	3422056		4.80000	4.901

0792

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020218.d
Lab Smp Id: Retek ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m
Misc Info: 50mL [10.0ppbv]

Calibration Date: 02-FEB-2005
Calibration Time: 23:37
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	572529	2.55
38 1,4-Difluorobenze	2615588	1569353	3661823	2672286	2.17
54 Chlorobenzene-d5	1815836	1089502	2542170	1701574	-6.29

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0793

Date : 03-FEB-2005 01:36

Client ID: Level 5

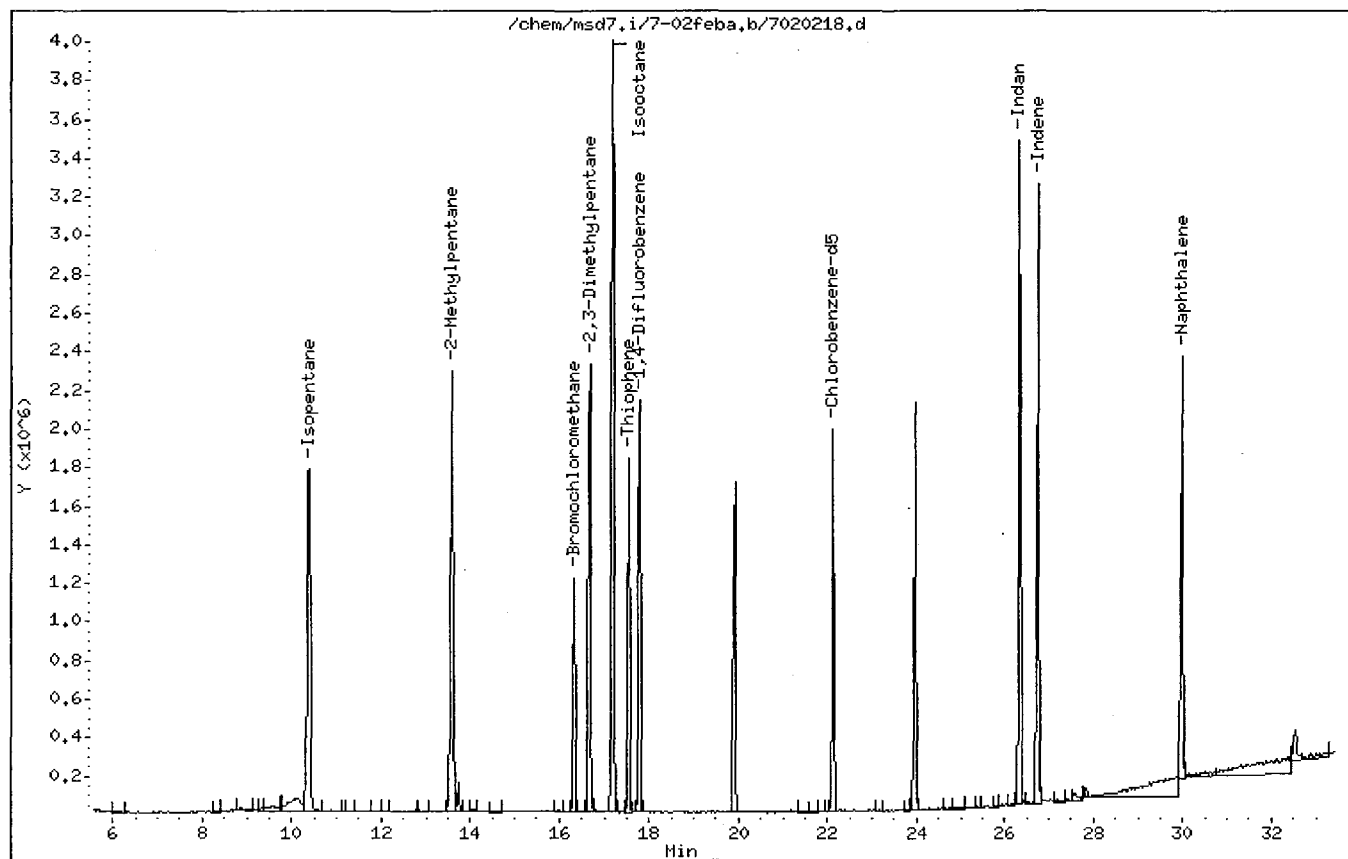
Instrument: msd7.i

Sample Info: #12343-99A Can#4154

Operator: WW

Column phase: RTX-624

Column diameter: 0.32



0794

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-28jan.b/7012804.d
Lab Smp Id: Level 5
Inj Date : 28-JAN-2005 12:43
Operator : jeet
Smp Info : #1243-158 (50ppbv)
Misc Info : 200ml=20ppbv
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:40 wwong
Cal Date : 04-FEB-2005 09:34
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020404.d
Calibration Sample, Level: 5
Compound Sublist: AT-1.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.327	16.327	(1.000)	130	558733	10.0000		50.00- 150.00	100.00	
16.327	16.327	(1.000)	128	439139			26.93- 126.93	78.60	
16.327	16.327	(1.000)	49	1082862			130.26- 230.26	193.81	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.790	17.791	(1.000)	114	2683662	10.0000		50.00- 150.00	100.00	
17.790	17.791	(1.000)	88	464374			0.00- 67.15	17.30	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.126	22.126	(1.000)	117	1915540	10.0000		50.00- 150.00	100.00	
22.126	22.126	(1.000)	82	1165560			9.29- 109.29	60.85	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.211	17.211	(1.054)	65	1169793	10.0000	10.165	50.00- 150.00	100.00	
17.211	17.211	(1.054)	67	601495			0.17- 100.17	51.42	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.917	19.917	(1.120)	98	2301174	10.0000	10.051	50.00- 150.00	100.00	
19.917	19.889	(1.120)	70	279025			0.00- 62.02	12.13	

0795

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
=====								
\$ 45 Toluene-d8 (continued)								
19.917	19.917	(1.120)	100	1685379			22.07- 122.07	73.24

\$ 63 Bromofluorobenzene								
						CAS #: 460-00-4		
23.976	23.949	(1.084)	174	982651	10.0000	9.930	50.00- 150.00	100.00
23.949	23.949	(1.082)	95	1555204			106.39- 206.39	158.27
23.976	23.977	(1.084)	176	941141			46.50- 146.50	95.78

1 Dichlorodifluoromethane/Fr12								
						CAS #: 75-71-8		
5.943	5.944	(0.364)	85	8307750	20.0000	18.344	50.00- 150.00	100.00
5.943	5.944	(0.364)	87	2681340			0.00- 78.70	32.28

3 Freon 114								
						CAS #: 76-14-2		
7.048	7.048	(0.432)	135	4787775	20.0000	19.035	50.00- 150.00	100.00
7.048	7.048	(0.432)	137	1501047			0.00- 81.73	31.35

4 Chloromethane								
						CAS #: 74-87-3		
7.352	7.352	(0.450)	50	2550280	20.0000	19.532	50.00- 150.00	100.00
7.352	7.352	(0.450)	52	798961			0.00- 84.65	31.33

6 Vinyl Chloride								
						CAS #: 75-01-4		
8.070	8.070	(0.494)	62	2548969	20.0000	17.826	50.00- 150.00	100.00
8.070	8.070	(0.494)	64	765274			0.00- 79.81	30.02

7 1,3-Butadiene								
						CAS #: 106-99-0		
8.291	8.291	(0.508)	54	2294787	20.0000	19.278	50.00- 150.00	100.00
8.291	8.291	(0.508)	39	2183318			47.56- 147.56	95.14

8 Bromomethane								
						CAS #: 74-83-9		
9.727	9.727	(0.596)	94	1741098	17.8000	15.144	50.00- 150.00	100.00
9.727	9.727	(0.596)	96	1664463			40.37- 140.37	95.60

9 Chloroethane								
						CAS #: 75-00-3		
10.224	10.224	(0.626)	64	961094	16.8000	14.113	50.00- 150.00	100.00
10.224	10.224	(0.626)	66	290066			0.00- 83.15	30.18

10 Trichlorofluoromethane/Fr11								
						CAS #: 75-69-4		
11.052	11.053	(0.677)	101	7372679	20.0000	18.721	50.00- 150.00	100.00
11.052	11.053	(0.677)	103	4737124			14.55- 114.55	64.25

12 Ethanol								
						CAS #: 64-17-5		
12.046	12.047	(0.738)	45	576230	10.0000	11.233	50.00- 150.00	100.00
12.046	12.047	(0.738)	43	119452			0.00- 76.80	20.73
12.046	12.047	(0.738)	46	227164			0.00- 90.35	39.42

15 Freon 113								
						CAS #: 76-13-1		
12.544	12.544	(0.768)	151	2916131	20.0000	17.915	50.00- 150.00	100.00

0796

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL		RATIO
				RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 113 (continued)								
12.544	12.544	(0.768)	153	1854185			10.02- 110.02	63.58
12.544	12.544	(0.768)	101	3946947			83.72- 183.72	135.35

14 1,1-Dichloroethene						CAS #: 75-35-4		
12.516	12.516	(0.767)	98	1501448	20.0000	18.746	50.00- 150.00	100.00
12.516	12.516	(0.767)	61	4239225			236.36- 336.36	282.34
12.516	12.516	(0.767)	96	2346384			123.22- 223.22	156.27

16 Acetone						CAS #: 67-64-1		
12.820	12.848	(0.785)	43	5254299	20.0000	17.845	50.00- 150.00	100.00
12.820	12.848	(0.785)	58	1482699			0.00- 78.77	28.22

17 Carbon Disulfide						CAS #: 75-15-0		
12.903	12.903	(0.790)	76	7136631	20.0000	19.516	50.00- 150.00	100.00

18 2-Propanol						CAS #: 67-63-0		
13.234	13.234	(0.811)	45	5402091	20.0000	19.423	50.00- 150.00	100.00
13.234	13.234	(0.811)	43	1009234			0.00- 69.88	18.68
13.234	13.234	(0.811)	59	199795			0.00- 53.72	3.70

20 Methylene Chloride						CAS #: 75-09-2		
13.731	13.731	(0.841)	84	2078663	20.0000	17.841	50.00- 150.00	100.00
13.731	13.731	(0.841)	49	3028812			95.37- 195.37	145.71
13.731	13.731	(0.841)	51	880695			0.00- 93.42	42.37

21 MTBE						CAS #: 1634-04-4		
14.145	14.145	(0.866)	73	6090182	20.0000	18.804	50.00- 150.00	100.00
14.145	14.145	(0.866)	57	1439349			0.00- 73.87	23.63
14.145	14.145	(0.866)	41	1390654			0.00- 73.22	22.83

22 trans-1,2-Dichloroethene						CAS #: 156-60-5		
14.173	14.173	(0.868)	98	1605771	20.0000	18.577	50.00- 150.00	100.00
14.173	14.173	(0.868)	61	3879611			191.91- 291.91	241.60
14.173	14.173	(0.868)	96	2548449			105.43- 205.43	158.71

24 Hexane						CAS #: 110-54-3		
14.559	14.560	(0.892)	57	4174789	20.0000	18.910	50.00- 150.00	100.00
14.559	14.560	(0.892)	43	2650820			15.23- 115.23	63.50
14.559	14.560	(0.892)	86	627685			0.00- 65.23	15.04

25 1,1-Dichloroethane						CAS #: 75-34-3		
15.001	15.002	(0.919)	63	4378438	20.0000	18.351	50.00- 150.00	100.00
15.001	15.002	(0.919)	65	1322568			0.00- 79.39	30.21

26 Vinyl Acetate						CAS #: 108-05-4		
15.057	15.057	(0.922)	43	1255784	20.0000	19.228	50.00- 150.00	100.00

0797

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	{ PPBV}	{ PPBV}	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
26 Vinyl Acetate (continued)								
15.057	15.057	(0.922)	42	98584			0.00- 59.38	7.85
15.057	15.057	(0.922)	86	112334			0.00- 58.64	8.95

27 cis-1,2-Dichloroethene			CAS #: 156-59-2					
15.940	15.940	(0.976)	98	1450365	20.0000	17.950	50.00- 150.00	100.00
15.940	15.940	(0.976)	61	4181328			236.14- 336.14	288.29
15.940	15.940	(0.976)	96	2267519			126.98- 226.98	156.34

28 2-Butanone			CAS #: 78-93-3					
15.968	15.968	(0.978)	72	1423657	20.0000	19.446	50.00- 150.00	100.00
15.968	15.968	(0.978)	43	15192860			985.71-1085.71	1067.17
15.968	15.968	(0.978)	57	556808			0.00- 89.21	39.11

23 Tetrahydrofuran			CAS #: 109-99-9					
16.327	16.327	(1.000)	42	3075826	20.0000	28.706	50.00- 150.00	100.00
16.327	16.327	(1.000)	71	1023840			0.00- 70.82	33.29
16.327	16.327	(1.000)	72	1111772			0.00- 67.41	36.15

30 Chloroform			CAS #: 67-66-3					
16.410	16.410	(1.005)	83	5018411	20.0000	18.776	50.00- 150.00	100.00
16.410	16.410	(1.005)	85	3197439			13.79- 113.79	63.71

31 Cyclohexane			CAS #: 110-82-7					
16.658	16.658	(1.020)	84	2201964	20.0000	18.038	50.00- 150.00	100.00
16.658	16.658	(1.020)	56	3204260			93.37- 193.37	145.52
16.658	16.658	(1.020)	41	1831743			30.80- 130.80	83.19

32 1,1,1-Trichloroethane			CAS #: 71-55-6					
16.658	16.658	(1.020)	97	4061093	20.0000	18.545	50.00- 150.00	100.00
16.658	16.658	(1.020)	99	2592777			15.31- 115.31	63.84

33 Carbon Tetrachloride			CAS #: 56-23-5					
16.879	16.879	(1.034)	119	3708771	20.0000	18.485	50.00- 150.00	100.00
16.879	16.879	(1.034)	117	4129579			60.43- 160.43	111.35

35 Benzene			CAS #: 71-43-2					
17.211	17.211	(0.967)	78	6545313	20.0000	16.805	50.00- 150.00	100.00
17.211	17.211	(0.967)	77	1427598			0.00- 72.07	21.81

36 1,2-Dichloroethane			CAS #: 107-06-2					
17.321	17.321	(0.974)	62	3592998	20.0000	18.971	50.00- 150.00	100.00
17.321	17.321	(0.974)	64	1102296			0.00- 81.56	30.68

37 Heptane			CAS #: 142-82-5					
17.431	17.432	(0.980)	43	4336017	20.0000	19.067	50.00- 150.00	100.00

0798

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
37 Heptane (continued)								
17.431	17.432	(0.980)	57	2223631			1.42- 101.42	51.28
17.459	17.459	(0.981)	100	749920			0.00- 66.93	17.30

39 Trichloroethene						CAS #: 79-01-6		
18.149	18.150	(1.020)	130	2633520	20.0000	19.252	50.00- 150.00	100.00
18.149	18.150	(1.020)	95	2874178			66.40- 166.40	109.14
18.149	18.150	(1.020)	97	1857962			23.45- 123.45	70.55

40 1,2-Dichloropropane						CAS #: 78-87-5		
18.536	18.536	(1.042)	63	2093770	20.0000	18.671	50.00- 150.00	100.00
18.536	18.536	(1.042)	62	1430463			15.34- 115.34	68.32
18.536	18.536	(1.042)	41	1570013			49.57- 149.57	74.98

41 1,4-Dioxane						CAS #: 123-91-1		
18.647	18.674	(1.048)	88	1597661	20.0000	20.058	50.00- 150.00	100.00
18.647	18.647	(1.048)	58	1240093			30.18- 130.18	77.62
18.647	18.647	(1.048)	57	406882			0.00- 75.47	25.47

42 Bromodichloromethane						CAS #: 75-27-4		
18.895	18.895	(1.062)	83	5015302	20.0000	19.769	50.00- 150.00	100.00
18.895	18.895	(1.062)	85	3240461			13.56- 113.56	64.61

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
19.558	19.558	(1.099)	75	3406253	20.0000	20.008	50.00- 150.00	100.00
19.558	19.558	(1.099)	77	1092481			0.00- 85.11	32.07
19.558	19.558	(1.099)	39	2131423			14.09- 114.09	62.57

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.724	19.724	(1.109)	43	5161152	20.0000	20.511	50.00- 150.00	100.00
19.724	19.724	(1.109)	58	1959291			0.00- 87.48	37.96
19.724	19.724	(1.109)	85	848665			0.00- 66.91	16.44

46 Toluene						CAS #: 108-88-3		
20.000	20.000	(1.124)	91	8145517	20.0000	18.255	50.00- 150.00	100.00
20.000	20.000	(1.124)	92	4981429			10.82- 110.82	61.16

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
20.359	20.359	(0.920)	75	3232904	20.0000	19.956	50.00- 150.00	100.00
20.359	20.359	(0.920)	77	1026808			0.00- 83.15	31.76
20.359	20.359	(0.920)	39	1774398			4.33- 104.33	54.89

48 1,1,2-Trichloroethane						CAS #: 79-00-5		
20.662	20.663	(0.934)	97	2456845	20.0000	19.347	50.00- 150.00	100.00
20.662	20.663	(0.934)	99	1534456			15.28- 115.28	62.46
20.662	20.663	(0.934)	83	1959760			30.67- 130.67	79.77

0799

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.801	20.801	(0.940)	166	3102705	20.0000	18.810	50.00- 150.00	100.00
20.801	20.801	(0.940)	129	2373526			25.91- 125.91	76.50
20.801	20.801	(0.940)	131	2269654			24.96- 124.96	73.15

50 2-Hexanone						CAS #: 591-78-6		
20.939	20.939	(0.946)	58	2520991	20.0000	20.145	50.00- 150.00	100.00
20.939	20.939	(0.946)	43	4811664			143.59- 243.59	190.86
20.939	20.939	(0.946)	100	462041			0.00- 68.76	18.33

51 Dibromochloromethane						CAS #: 124-48-1		
21.242	21.243	(0.960)	129	3698535	20.0000	20.701	50.00- 150.00	100.00
21.242	21.243	(0.960)	208	176000			0.00- 54.14	4.76

53 1,2-Dibromoethane						CAS #: 106-93-4		
21.463	21.464	(0.970)	107	3451166	20.0000	19.736	50.00- 150.00	100.00
21.463	21.464	(0.970)	109	3299541			42.42- 142.42	95.61

55 Chlorobenzene						CAS #: 108-90-7		
22.181	22.181	(1.002)	112	5273551	20.0000	19.259	50.00- 150.00	100.00
22.181	22.181	(1.002)	114	1669077			0.00- 81.53	31.65
22.181	22.181	(1.002)	77	3531796			30.76- 130.76	66.97

56 Ethyl Benzene						CAS #: 100-41-4		
22.264	22.264	(1.006)	106	2981166	20.0000	18.955	50.00- 150.00	100.00
22.264	22.264	(1.006)	91	10115921			294.78- 394.78	339.33

57 m,p-Xylene						CAS #: 108-38-3		
22.430	22.430	(1.014)	106	3567247	20.0000	18.545	50.00- 150.00	100.00
22.430	22.430	(1.014)	91	7778243			167.96- 267.96	218.05

58 o-Xylene						CAS #: 95-47-6		
23.065	23.065	(1.042)	106	2920810	20.0000	18.645	50.00- 150.00	100.00
23.065	23.065	(1.042)	91	6844465			178.03- 278.03	234.33

59 Styrene						CAS #: 100-42-5		
23.093	23.093	(1.044)	104	5580171	22.8000	23.012	50.00- 150.00	100.00
23.093	23.093	(1.044)	78	3078601			9.03- 109.03	55.17

60 Bromoform						CAS #: 75-25-2		
23.479	23.479	(1.061)	173	2805291	20.0000	21.729	50.00- 150.00	100.00
23.479	23.479	(1.061)	171	1441177			1.45- 101.45	51.37

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
24.170	24.170	(1.092)	83	3602300	20.0000	19.315	50.00- 150.00	100.00
24.170	24.170	(1.092)	85	2335203			14.48- 114.48	64.83

0800

AMOUNTS									
					CAL-AMT	ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
66 4-Ethyltoluene						CAS #: 622-96-8			
24.473	24.474	(1.106)	105	7823809	20.0000	18.745	50.00- 150.00	100.00	
24.473	24.474	(1.106)	120	1890055			0.00- 75.33	24.16	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.556	24.556	(1.110)	105	6920780	20.0000	18.690	50.00- 150.00	100.00	
24.556	24.556	(1.110)	120	2692282			0.00- 89.49	38.90	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.219	25.219	(1.140)	105	6519502	20.0000	18.439	50.00- 150.00	100.00	
25.219	25.219	(1.140)	120	2407012			0.00- 88.78	36.92	

70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.771	25.771	(1.165)	146	4147504	20.0000	16.332	50.00- 150.00	100.00	
25.771	25.771	(1.165)	148	2653933			13.36- 113.36	63.99	
25.771	25.771	(1.165)	111	1782224			0.00- 93.12	42.97	

71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.937	25.937	(1.172)	146	4129663	20.0000	15.613	50.00- 150.00	100.00	
25.937	25.937	(1.172)	148	2594894			12.91- 112.91	62.84	
25.937	25.937	(1.172)	111	1712438			0.00- 90.99	41.47	

72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.158	26.158	(1.182)	91	4983944	20.0000	16.692	50.00- 150.00	100.00	
26.158	26.158	(1.182)	126	875179			0.00- 66.94	17.56	

73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.600	26.600	(1.202)	146	3649998	20.0000	16.155	50.00- 150.00	100.00	
26.600	26.600	(1.202)	148	2307773			13.35- 113.35	63.23	
26.600	26.600	(1.202)	111	1629604			0.00- 94.07	44.65	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.472	29.472	(1.332)	180	4262687	25.4000	22.461	50.00- 150.00	100.00	
29.472	29.472	(1.332)	182	4035575			44.10- 144.10	94.67	

76 Hexachlorobutadiene						CAS #: 87-68-3			
29.665	29.665	(1.341)	225	2363518	25.4000	19.014	50.00- 150.00	100.00	
29.665	29.665	(1.341)	223	1476831			13.94- 113.94	62.48	

62 Cumene						CAS #: 98-82-8			
23.617	23.617	(1.067)	105	7242616	20.0000	19.045	50.00- 150.00	100.00	
23.617	23.617	(1.067)	120	1545838			0.00- 71.87	21.34	

65 Propylbenzene						CAS #: 103-65-1			
24.280	24.280	(1.097)	91	9740588	20.0000	18.619	50.00- 150.00	100.00	
24.280	24.280	(1.097)	120	1824821			0.00- 69.14	18.73	

0801

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7012804.d
Lab Smp Id: Level 5
Analysis Type: VOA
Quant Type: ISTD
Operator: jeet
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 200ml=20ppbv

Calibration Date: 28-JAN-2005
Calibration Time: 11:56
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	574395	344637	804153	558733	-2.73
38 1,4-Difluorobenze	2663440	1598064	3728816	2683662	0.76
54 Chlorobenzene-d5	1877154	1126292	2628016	1915540	2.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 28-JAN-2005 12:43

Client ID:

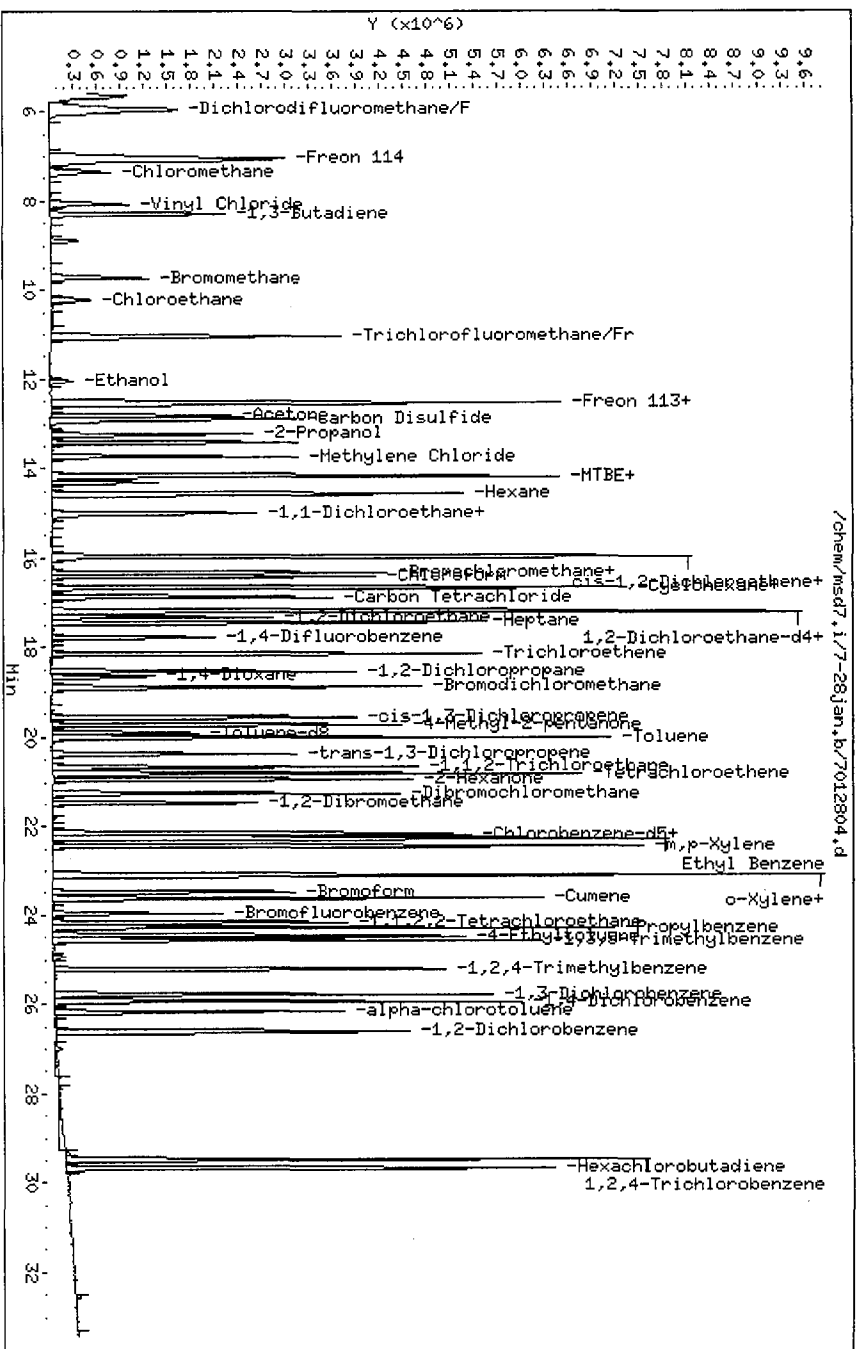
Instrument: msd7.1

Sample Info: #1243-158 (50ppbv)

Operator: jeet

Column phase: RTX-624

Column diameter: 0.32



0803

SCOEP A00032475

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-04feb.b/7020405.d
Lab Smp Id: Level 6 Client Smp ID: Level 6
Inj Date : 04-FEB-2005 10:13
Operator : NK Inst ID: msd7.i
Smp Info : #1243-163[200ppbv]
Misc Info : 20ppbv[50ml]
Comment :
Method : /chem/msd7.i/7-04feb.b/tl14lj27b.m
Meth Date : 07-Feb-2005 09:26 nkhan Quant Type: ISTD
Cal Date : 04-FEB-2005 10:13 Cal File: 7020405.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Sp6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====

* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	542046	10.0000		50.00- 150.00	100.00
16.331	16.331	(1.000)	128	432700			26.96- 126.96	79.83
16.331	16.331	(1.000)	49	989101			126.50- 226.50	182.48

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2564497	10.0000		50.00- 150.00	100.00
17.794	17.794	(1.000)	88	431274			0.00- 67.06	16.82

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1798613	10.0000		50.00- 150.00	100.00
22.130	22.130	(1.000)	82	1050153			9.26- 109.26	58.39

2 Propylene						CAS #: 115-07-1		
5.644	5.671	(0.346)	41	2345040	20.0000	19.445	50.00- 150.00	100.00
5.644	5.671	(0.346)	42	1588350			19.57- 119.57	67.73
5.644	5.671	(0.346)	39	1680911			24.97- 124.97	71.68

12 Ethanol						CAS #: 64-17-5		
12.078	12.023	(0.740)	45	1264318	20.0000	23.577	50.00- 150.00	100.00

0804

AMOUNTS									
		CAL-AMT		ON-COL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
12 Ethanol (continued)									
12.078	12.023	(0.740)	43	276117			0.00-	76.71	21.84
12.078	12.023	(0.740)	46	517283			0.00-	90.17	40.91
152 Acetonitrile						CAS #: 75-05-8			
13.542	13.541	(0.829)	40	1117604	20.0000	19.921	50.00-	150.00	100.00
13.542	13.541	(0.829)	41	2203406			142.42-	242.42	197.15
13.542	13.541	(0.829)	39	447190			0.00-	90.49	40.01
19 Acrylonitrile						CAS #: 107-13-1			
14.315	14.315	(0.877)	53	2130304	20.0000	22.064	50.00-	150.00	100.00
14.315	14.315	(0.877)	52	1696902			28.76-	128.76	79.66
151 Chlorprene						CAS #: 126-99-8			
15.088	15.088	(0.924)	53	8370622	20.0000	22.932	50.00-	150.00	100.00
15.088	15.088	(0.924)	88	3250034			0.00-	90.01	38.83
149 Vinyl Bromide						CAS #: 593-60-2			
10.835	10.835	(0.663)	106	1588099	20.0000	19.019	50.00-	150.00	100.00
10.835	10.835	(0.663)	108	1404748			40.24-	140.24	88.45

0805

SCOEP00032477

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 04-FEB-2005
Lab File ID: 7020405.d	Calibration Time: 11:49
Lab Smp Id: Level 6	Client Smp ID: Level 6
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: NK	
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m	
Misc Info: 20ppbv[50ml]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	536594	321956	751232	542046	1.02
38 1,4-Difluorobenze	2424171	1454503	3393839	2564497	5.79
54 Chlorobenzene-d5	1781273	1068764	2493782	1798613	0.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0806

SCOEPAA00032478

Date : 04-FEB-2005 10:13

Client ID: Level 6

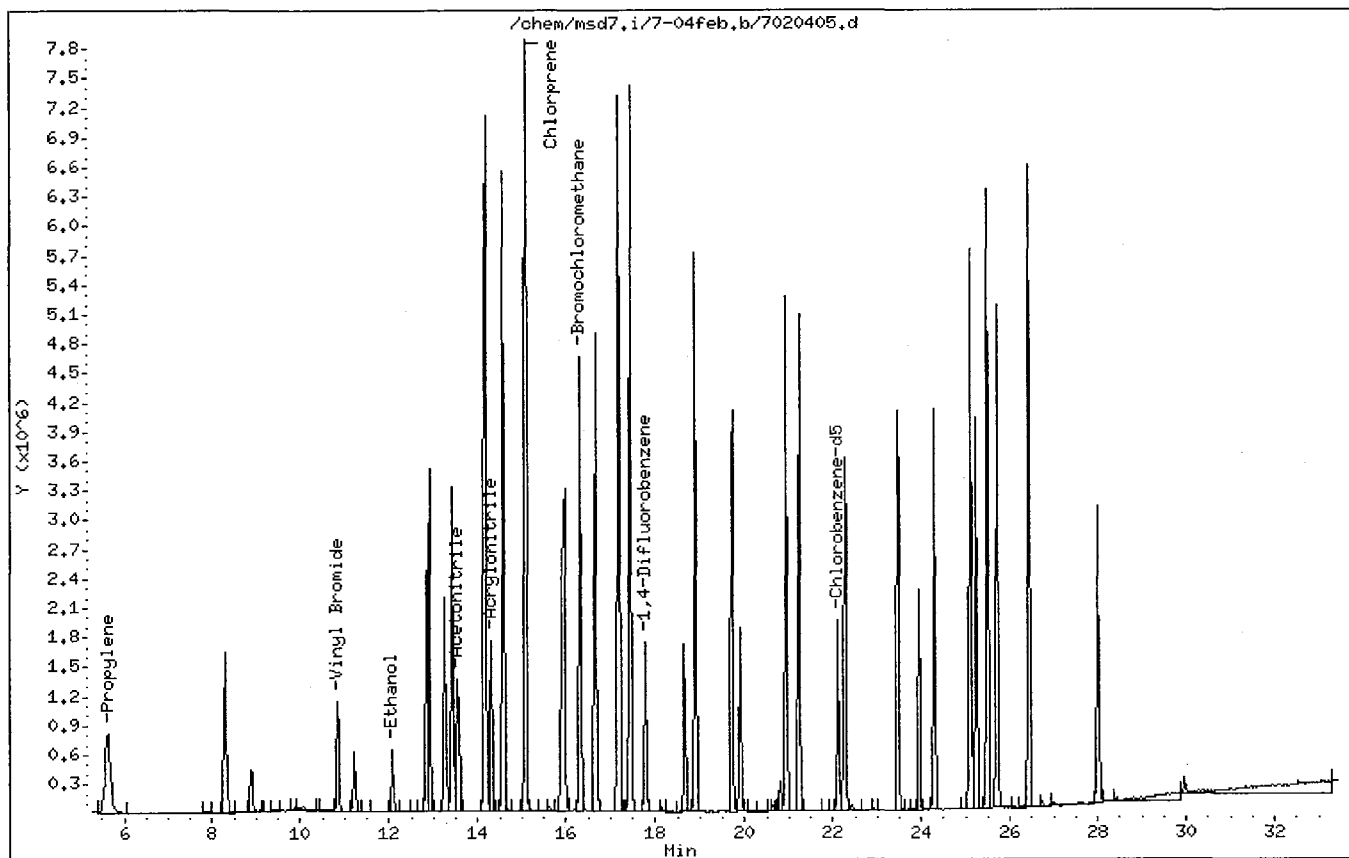
Instrument: msd7.i

Sample Info: #1243-163[200ppbv]

Operator: NK

Column phase: RTX-624

Column diameter: 0.32



0807

SCOEPA00032479

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-02feba.b/7020219.d
Lab Smp Id: Retek ICAL Client Smp ID: Level 6
Inj Date : 03-FEB-2005 02:19
Operator : WW Inst ID: msd7.i
Smp Info : #12343-99A Can#4154
Misc Info : 100mL [20.0ppbv]
Comment :
Method : /chem/msd7.i/7-02feba.b/t141J27a.m
Meth Date : 04-Feb-2005 11:57 wwrong Quant Type: ISTD
Cal Date : 03-FEB-2005 02:19 Cal File: 7020219.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecICAL.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)	(PPBV)
* 29 Bromochloromethane	130	16.327	16.327	(1.000)	576930	10.0000	
* 38 1,4-Difluorobenzene	114	17.791	17.791	(1.000)	2940632	10.0000	
* 54 Chlorobenzene-d5	117	22.126	22.126	(1.000)	1897316	10.0000	
142 Isopentane	57	10.362	10.390	(0.635)	1941272	20.0000	16.826
147 2-Methylpentane	71	13.565	13.566	(0.831)	1892459	20.0000	21.170
148 2,3-Dimethylpentane	71	16.686	16.686	(0.938)	1168399	20.0000	20.094
143 Isooctane	56	17.183	17.183	(1.052)	3692119	20.0000	20.400
144 Thiophene	84	17.542	17.542	(0.986)	3322990	14.6000	14.910
145 Indan	117	26.324	26.324	(1.190)	6826647	20.0000	18.061
146 Indene	115	26.738	26.738	(1.208)	5711621	20.0000	17.688
74 Naphthalene	128	29.969	29.969	(1.354)	6269145	9.60000	8.053

0808

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 02-FEB-2005
Lab File ID: 7020219.d	Calibration Time: 23:37
Lab Smp Id: Retek ICAL	Client Smp ID: Level 6
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-02feba.b/t141J27a.m	
Misc Info: 100mL [20.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	558271	334963	781579	576930	3.34
38 1,4-Difluorobenze	2615588	1569353	3661823	2940632	12.43
54 Chlorobenzene-d5	1815836	1089502	2542170	1897316	4.49

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0809

SCOEPAA00032481

Date : 03-FEB-2005 02:19

Client ID: Level 6

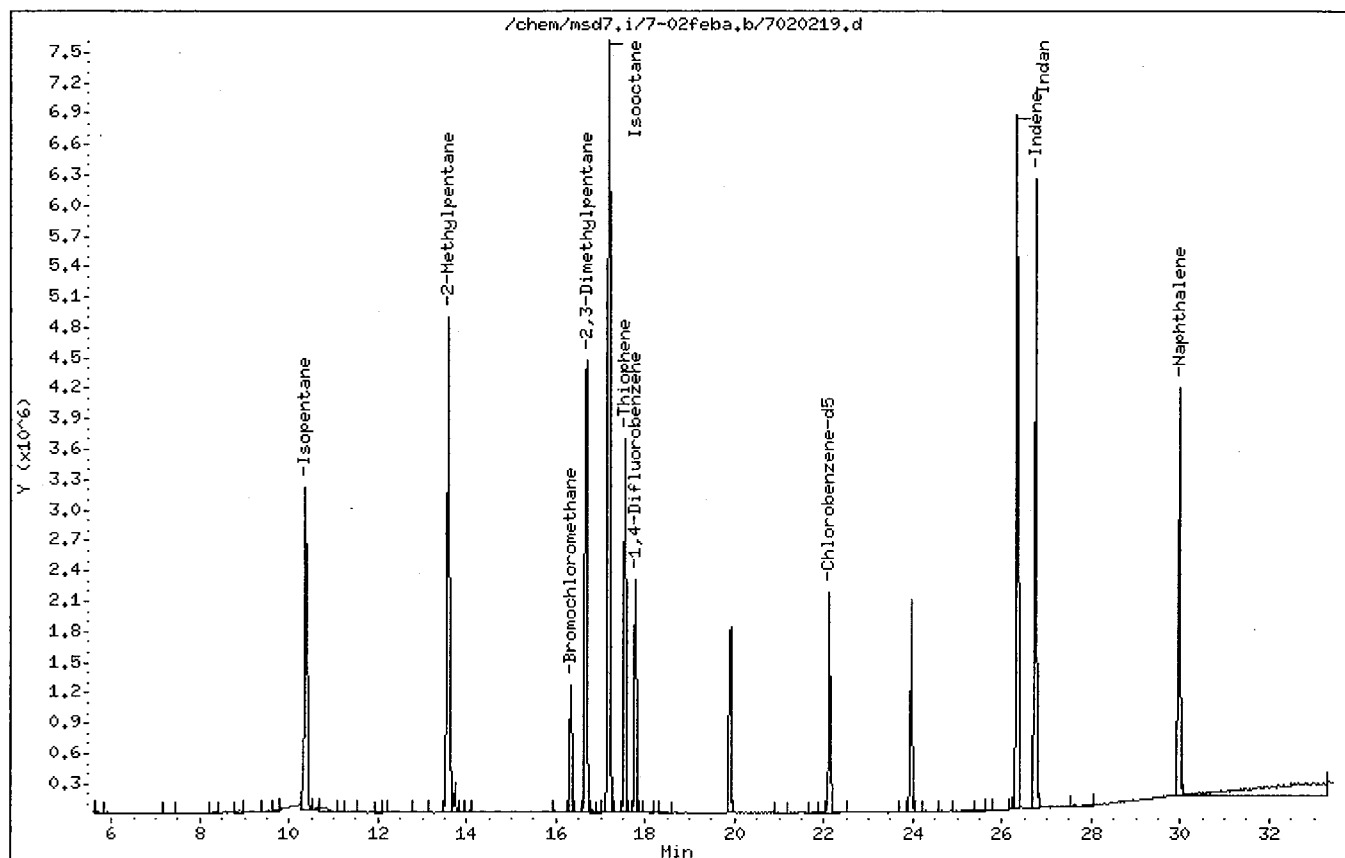
Instrument: msd7.i

Sample Info: #12343-99A Can#4154

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0810

SCOEPA00032482

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-28jan.b/7012805.d
Lab Smp Id: Level 6
Inj Date : 28-JAN-2005 15:28
Operator : jeet
Smp Info : #1243-158 (50ppbv)
Misc Info : 400ml=40ppbv
Comment :
Method : /chem/msd7.i/7-04feb.b/t141J27b.m
Meth Date : 04-Feb-2005 15:40 wwrong
Cal Date : 04-FEB-2005 10:13
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore
Inst ID: msd7.i
Quant Type: ISTD
Cal File: 7020405.d
Calibration Sample, Level: 6
Compound Sublist: AT-1.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.327	16.327	(1.000)	130	581014	10.0000		50.00- 150.00	100.00	
16.327	16.327	(1.000)	128	453203			26.62- 126.62	78.00	
16.327	16.327	(1.000)	49	1052399			130.03- 230.03	181.13	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.790	17.791	(1.000)	114	2940086	10.0000		50.00- 150.00	100.00	
17.790	17.791	(1.000)	88	497197			0.00- 67.17	16.91	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.126	22.126	(1.000)	117	2052516	10.0000		50.00- 150.00	100.00	
22.126	22.126	(1.000)	82	1245373			9.67- 109.67	60.68	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.211	17.211	(1.054)	65	1250360	10.0000	10.449	50.00- 150.00	100.00	
17.211	17.211	(1.054)	67	754501			0.17- 100.17	60.34	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.917	19.917	(1.120)	98	2485054	10.0000	9.907	50.00- 150.00	100.00	
19.889	19.889	(1.118)	70	299168			0.00- 62.02	12.04	

0811

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)							
19.917	19.917	(1.120)	100	1759662			22.07- 122.07 70.81

\$ 63 Bromofluorobenzene CAS #: 460-00-4							
23.949	23.949	(1.082)	174	1040044	10.0000	9.809	50.00- 150.00 100.00
23.949	23.949	(1.082)	95	1622145			106.39- 206.39 155.97
23.949	23.977	(1.082)	176	1012997			46.50- 146.50 97.40

1 Dichlorodifluoromethane/Fr12 CAS #: 75-71-8							
5.944	5.944	(0.364)	85	19065590	40.0000	40.483	50.00- 150.00 100.00(A)
5.944	5.944	(0.364)	87	6122229			0.00- 78.70 32.11

3 Freon 114 CAS #: 76-14-2							
7.048	7.048	(0.432)	135	10820370	40.0000	41.369	50.00- 150.00 100.00(A)
7.048	7.048	(0.432)	137	3367745			0.00- 81.73 31.12

4 Chloromethane CAS #: 74-87-3							
7.352	7.352	(0.450)	50	5379639	40.0000	39.622	50.00- 150.00 100.00(A)
7.352	7.352	(0.450)	52	1652279			0.00- 84.65 30.71

6 Vinyl Chloride CAS #: 75-01-4							
8.070	8.070	(0.494)	62	5837981	40.0000	39.261	50.00- 150.00 100.00(A)
8.070	8.070	(0.494)	64	1755380			0.00- 79.81 30.07

7 1,3-Butadiene CAS #: 106-99-0							
8.291	8.291	(0.508)	54	5299370	40.0000	42.813	50.00- 150.00 100.00(A)
8.291	8.291	(0.508)	39	5002839			47.56- 147.56 94.40

8 Bromomethane CAS #: 74-83-9							
9.727	9.727	(0.596)	94	3887156	35.6000	32.514	50.00- 150.00 100.00(A)
9.727	9.727	(0.596)	96	3616636			40.37- 140.37 93.04

9 Chloroethane CAS #: 75-00-3							
10.224	10.224	(0.626)	64	2159005	33.6000	30.487	50.00- 150.00 100.00(A)
10.224	10.224	(0.626)	66	650715			0.00- 83.15 30.14

10 Trichlorofluoromethane/Fr11 CAS #: 75-69-4							
11.052	11.053	(0.677)	101	16363751	40.0000	39.958	50.00- 150.00 100.00(AH)
11.052	11.053	(0.677)	103	10372264			14.55- 114.55 63.39

12 Ethanol CAS #: 64-17-5							
12.046	12.047	(0.738)	45	1290130	20.0000	24.485	50.00- 150.00 100.00
12.046	12.047	(0.738)	43	276811			0.00- 76.71 21.46
12.046	12.047	(0.738)	46	529618			0.00- 90.39 41.05

15 Freon 113 CAS #: 76-13-1							
12.544	12.544	(0.768)	151	6347894	40.0000	37.502	50.00- 150.00 100.00(A)

AMOUNTS							
RT	EXP RT (REL RT)	MASS	RESPONSE (PPBV)	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
=====							
15 Freon 113 (continued)							
12.544	12.544 (0.768)	153	4012020			10.02- 110.02	63.20
12.544	12.544 (0.768)	101	8771612			83.72- 183.72	138.18

14 1,1-Dichloroethene				CAS #: 75-35-4			
12.516	12.516 (0.767)	98	3234577	40.0000	38.836	50.00- 150.00	100.00(A)
12.516	12.516 (0.767)	61	9357697			236.36- 336.36	289.30
12.516	12.516 (0.767)	96	5035672			123.22- 223.22	155.68

16 Acetone				CAS #: 67-64-1			
12.820	12.848 (0.785)	43	11712860	40.0000	38.255	50.00- 150.00	100.00(A)
12.847	12.848 (0.787)	58	3267289			0.00- 78.77	27.89

17 Carbon Disulfide				CAS #: 75-15-0			
12.903	12.903 (0.790)	76	15909750	40.0000	41.840	50.00- 150.00	100.00(A)

18 2-Propanol				CAS #: 67-63-0			
13.234	13.234 (0.811)	45	12436079	40.0000	42.999	50.00- 150.00	100.00(A)
13.234	13.234 (0.811)	43	2229120			0.00- 69.88	17.92
13.234	13.234 (0.811)	59	427779			0.00- 53.72	3.44

20 Methylene Chloride				CAS #: 75-09-2			
13.731	13.731 (0.841)	84	4531846	40.0000	37.404	50.00- 150.00	100.00(A)
13.731	13.731 (0.841)	49	6714371			95.37- 195.37	148.16
13.731	13.731 (0.841)	51	1943881			0.00- 93.42	42.89

21 MTBE				CAS #: 1634-04-4			
14.145	14.145 (0.866)	73	14140904	40.0000	41.988	50.00- 150.00	100.00(A)
14.145	14.145 (0.866)	57	3257787			0.00- 73.87	23.04
14.145	14.145 (0.866)	41	3094969			0.00- 73.22	21.89

22 trans-1,2-Dichloroethene				CAS #: 156-60-5			
14.173	14.173 (0.868)	98	3546448	40.0000	39.456	50.00- 150.00	100.00(A)
14.173	14.173 (0.868)	61	8680699			191.91- 291.91	244.77
14.173	14.173 (0.868)	96	5536532			105.43- 205.43	156.11

24 Hexane				CAS #: 110-54-3			
14.559	14.560 (0.892)	57	9346688	40.0000	40.712	50.00- 150.00	100.00(A)
14.559	14.560 (0.892)	43	5961268			15.23- 115.23	63.78
14.559	14.560 (0.892)	86	1418194			0.00- 65.23	15.17

25 1,1-Dichloroethane				CAS #: 75-34-3			
15.001	15.002 (0.919)	63	10000441	40.0000	40.307	50.00- 150.00	100.00(A)
15.001	15.002 (0.919)	65	2933406			0.00- 79.39	29.33

26 Vinyl Acetate				CAS #: 108-05-4			
15.057	15.057 (0.922)	43	3955955	40.0000	58.251	50.00- 150.00	100.00(A)

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AMOUNTS									
					CAL-AMT	ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
26 Vinyl Acetate (continued)									
15.057	15.057	(0.922)	42	303979			0.00~ 59.38	7.68	
15.057	15.057	(0.922)	86	352413			0.00~ 58.64	8.91	
27 cis-1,2-Dichloroethene						CAS #: 156-59-2			
15.940	15.940	(0.976)	98	3190499	40.0000	37.972	50.00~ 150.00	100.00(A)	
15.940	15.940	(0.976)	61	9414391			236.14~ 336.14	295.08	
15.940	15.940	(0.976)	96	4959709			126.98~ 226.98	155.45	
28 2-Butanone						CAS #: 78-93-3			
15.968	15.968	(0.978)	72	3079552	40.0000	40.450	50.00~ 150.00	100.00(A)	
15.968	15.968	(0.978)	43	32484802			985.71~1085.71	1054.85	
15.968	15.968	(0.978)	57	1206945			0.00~ 89.21	39.19	
23 Tetrahydrofuran						CAS #: 109-99-9			
16.327	16.327	(1.000)	42	6872317	40.0000	52.491	50.00~ 150.00	100.00(A)	
16.327	16.327	(1.000)	71	2291427			0.00~ 74.75	33.34	
16.327	16.327	(1.000)	72	2474747			0.00~ 74.44	36.01	
30 Chloroform						CAS #: 67-66-3			
16.410	16.410	(1.005)	83	11362806	40.0000	40.883	50.00~ 150.00	100.00(A)	
16.410	16.410	(1.005)	85	7260801			13.79~ 113.79	63.90	
31 Cyclohexane						CAS #: 110-82-7			
16.658	16.658	(1.020)	84	5009676	40.0000	39.465	50.00~ 150.00	100.00(A)	
16.658	16.658	(1.020)	56	7257134			93.37~ 193.37	144.86	
16.658	16.658	(1.020)	41	3983412			30.80~ 130.80	79.51	
32 1,1,1-Trichloroethane						CAS #: 71-55-6			
16.658	16.658	(1.020)	97	9375591	40.0000	41.172	50.00~ 150.00	100.00(A)	
16.658	16.658	(1.020)	99	5958470			15.31~ 115.31	63.55	
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.879	16.879	(1.034)	119	8592362	40.0000	41.183	50.00~ 150.00	100.00(A)	
16.879	16.879	(1.034)	117	9559574			60.43~ 160.43	111.26	
35 Benzene						CAS #: 71-43-2			
17.211	17.211	(0.967)	78	14753596	40.0000	34.577	50.00~ 150.00	100.00(A)	
17.211	17.211	(0.967)	77	3198260			0.00~ 72.07	21.68	
36 1,2-Dichloroethane						CAS #: 107-06-2			
17.321	17.321	(0.974)	62	8175472	40.0000	39.402	50.00~ 150.00	100.00(A)	
17.321	17.321	(0.974)	64	2484829			0.00~ 81.56	30.39	
37 Heptane						CAS #: 142-82-5			
17.431	17.432	(0.980)	43	9999868	40.0000	40.138	50.00~ 150.00	100.00(A)	

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AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
37 Heptane (continued)								
17.431	17.432	(0.980)	57	5181745			1.42- 101.42	51.82
17.459	17.459	(0.981)	100	1657863			0.00- 66.93	16.58

39 Trichloroethene						CAS #: 79-01-6		
18.149	18.150	(1.020)	130	5845947	40.0000	39.009	50.00- 150.00	100.00 (A)
18.149	18.150	(1.020)	95	6558019			66.40- 166.40	112.18
18.149	18.150	(1.020)	97	4221691			23.45- 123.45	72.22

40 1,2-Dichloropropane						CAS #: 78-87-5		
18.536	18.536	(1.042)	63	4725762	40.0000	38.465	50.00- 150.00	100.00 (A)
18.536	18.536	(1.042)	62	3241272			15.34- 115.34	68.59
18.536	18.536	(1.042)	41	3503335			49.57- 149.57	74.13

41 1,4-Dioxane						CAS #: 123-91-1		
18.647	18.674	(1.048)	88	3433156	40.0000	39.343	50.00- 150.00	100.00 (A)
18.647	18.647	(1.048)	58	2660577			30.18- 130.18	77.50
18.647	18.647	(1.048)	57	862059			0.00- 75.47	25.11

42 Bromodichloromethane						CAS #: 75-27-4		
18.895	18.895	(1.062)	83	11605014	40.0000	41.754	50.00- 150.00	100.00 (A)
18.895	18.895	(1.062)	85	7414758			13.56- 113.56	63.89

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
19.558	19.558	(1.099)	75	7712998	40.0000	41.354	50.00- 150.00	100.00 (A)
19.558	19.558	(1.099)	77	2397892			0.00- 85.11	31.09
19.558	19.558	(1.099)	39	4837734			14.09- 114.09	62.72

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.724	19.724	(1.109)	43	11834757	40.0000	42.930	50.00- 150.00	100.00 (A)
19.724	19.724	(1.109)	58	4423700			0.00- 87.48	37.38
19.724	19.724	(1.109)	85	1953817			0.00- 66.91	16.51

46 Toluene						CAS #: 108-88-3		
20.000	20.000	(1.124)	91	18748992	40.0000	38.354	50.00- 150.00	100.00 (A)
20.000	20.000	(1.124)	92	11357421			10.82- 110.82	60.58

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
20.359	20.359	(0.920)	75	7336482	40.0000	42.264	50.00- 150.00	100.00 (A)
20.359	20.359	(0.920)	77	2283405			0.00- 83.15	31.12
20.359	20.359	(0.920)	39	4029856			4.33- 104.33	54.93

48 1,1,2-Trichloroethane						CAS #: 79-00-5		
20.662	20.663	(0.934)	97	5424546	40.0000	39.865	50.00- 150.00	100.00 (A)
20.662	20.663	(0.934)	99	3425620			15.28- 115.28	63.15
20.662	20.663	(0.934)	83	4310806			30.67- 130.67	79.47

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.801	20.801	(0.940)	166	6651255	40.0000	37.633	50.00- 150.00	100.00(A)
20.801	20.801	(0.940)	129	5231795			25.91- 125.91	78.66
20.801	20.801	(0.940)	131	5003306			24.96- 124.96	75.22

50 2-Hexanone						CAS #: 591-78-6		
20.939	20.939	(0.946)	58	5788500	40.0000	43.168	50.00- 150.00	100.00(A)
20.939	20.939	(0.946)	43	11175265			143.59- 243.59	193.06
20.939	20.939	(0.946)	100	1099499			0.00- 68.76	18.99

51 Dibromochloromethane						CAS #: 124-48-1		
21.242	21.243	(0.960)	129	8297492	40.0000	43.342	50.00- 150.00	100.00(A)
21.242	21.243	(0.960)	208	392225			0.00- 54.14	4.73

53 1,2-Dibromoethane						CAS #: 106-93-4		
21.463	21.464	(0.970)	107	7747283	40.0000	41.346	50.00- 150.00	100.00(A)
21.463	21.464	(0.970)	109	7359222			42.42- 142.42	94.99

55 Chlorobenzene						CAS #: 108-90-7		
22.181	22.181	(1.002)	112	11711965	40.0000	39.918	50.00- 150.00	100.00(A)
22.181	22.181	(1.002)	114	3660652			0.00- 81.53	31.26
22.181	22.181	(1.002)	77	7858846			30.76- 130.76	67.10

56 Ethyl Benzene						CAS #: 100-41-4		
22.264	22.264	(1.006)	106	6795771	40.0000	40.326	50.00- 150.00	100.00(A)
22.264	22.264	(1.006)	91	23465431			294.78- 394.78	345.29

57 m,p-Xylene						CAS #: 108-38-3		
22.430	22.430	(1.014)	106	8070405	40.0000	39.156	50.00- 150.00	100.00(A)
22.430	22.430	(1.014)	91	18167938			167.96- 267.96	225.12

58 o-Xylene						CAS #: 95-47-6		
23.065	23.065	(1.042)	106	6641899	40.0000	39.570	50.00- 150.00	100.00(A)
23.065	23.065	(1.042)	91	15605013			178.03- 278.03	234.95

59 Styrene						CAS #: 100-42-5		
23.093	23.093	(1.044)	104	13017613	45.6000	50.101	50.00- 150.00	100.00(A)
23.093	23.093	(1.044)	78	7071284			9.03- 109.03	54.32

60 Bromoform						CAS #: 75-25-2		
23.479	23.479	(1.061)	173	6364538	40.0000	46.008	50.00- 150.00	100.00(A)
23.479	23.479	(1.061)	171	3281616			1.45- 101.45	51.56

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
24.170	24.170	(1.092)	83	8122349	40.0000	40.645	50.00- 150.00	100.00(A)
24.170	24.170	(1.092)	85	5207388			14.48- 114.48	64.11

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AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
66 4-Ethyltoluene						CAS #: 622-96-8			
24.473	24.474	(1.106)	105	18241957	40.0000	40.789	50.00- 150.00	100.00(A)	
24.473	24.474	(1.106)	120	4280922			0.00- 75.33	23.47	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.556	24.556	(1.110)	105	15755453	40.0000	39.708	50.00- 150.00	100.00(A)	
24.556	24.556	(1.110)	120	6001460			0.00- 89.49	38.09	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.219	25.219	(1.140)	105	15059951	40.0000	39.752	50.00- 150.00	100.00(A)	
25.219	25.219	(1.140)	120	5435944			0.00- 88.78	36.10	

70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.771	25.771	(1.165)	146	9138387	40.0000	33.583	50.00- 150.00	100.00(A)	
25.771	25.771	(1.165)	148	5699027			13.36- 113.36	62.36	
25.771	25.771	(1.165)	111	3912066			0.00- 93.12	42.81	

71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.937	25.937	(1.172)	146	9050338	40.0000	31.933	50.00- 150.00	100.00(A)	
25.937	25.937	(1.172)	148	5731132			12.91- 112.91	63.33	
25.937	25.937	(1.172)	111	3754591			0.00- 90.99	41.49	

72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.158	26.158	(1.182)	91	11762103	40.0000	36.765	50.00- 150.00	100.00(A)	
26.158	26.158	(1.182)	126	2009311			0.00- 66.94	17.08	

73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.600	26.600	(1.202)	146	8076884	40.0000	33.362	50.00- 150.00	100.00(A)	
26.600	26.600	(1.202)	148	5103348			13.35- 113.35	63.18	
26.600	26.600	(1.202)	111	3579455			0.00- 94.07	44.32	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.472	29.472	(1.332)	180	8424961	50.8000	41.430	50.00- 150.00	100.00(A)	
29.472	29.472	(1.332)	182	7908007			44.10- 144.10	93.86	

76 Hexachlorobutadiene						CAS #: 87-68-3			
29.665	29.665	(1.341)	225	4979990	50.8000	37.388	50.00- 150.00	100.00(A)	
29.665	29.665	(1.341)	223	3094879			13.94- 113.94	62.15	

62 Cumene						CAS #: 98-82-8			
23.617	23.617	(1.067)	105	16785567	40.0000	41.193	50.00- 150.00	100.00(A)	
23.617	23.617	(1.067)	120	3499370			0.00- 71.87	20.85	

65 Propylbenzene						CAS #: 103-65-1			
24.280	24.280	(1.097)	91	22410003	40.0000	39.977	50.00- 150.00	100.00(A)	
24.280	24.280	(1.097)	120	4215702			0.00- 69.14	18.81	

QC Flag Legend

- A - Target compound detected but, quantitated amount
exceeded maximum amount.
- H - Operator selected an alternate compound hit.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7012805.d
Lab Smp Id: Level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: jeet
Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Misc Info: 400ml=40ppbv

Calibration Date: 28-JAN-2005
Calibration Time: 11:56
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	574395	344637	804153	581014	1.15
38 1,4-Difluorobenze	2663440	1598064	3728816	2940086	10.39
54 Chlorobenzene-d5	1877154	1126292	2628016	2052516	9.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 28-JAN-2005 15:28

Client ID:

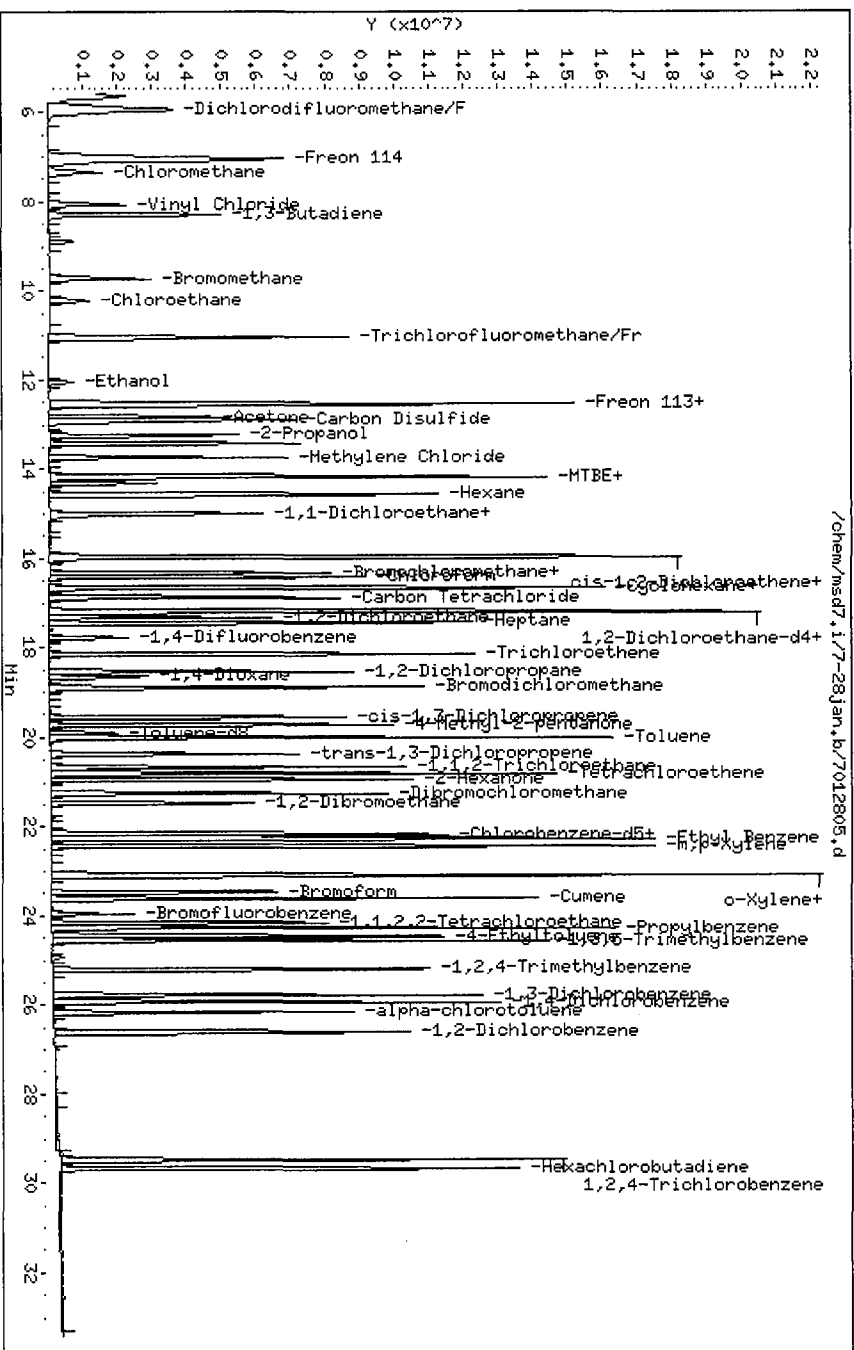
Instrument: msd7.i

Sample Info: #1243-158 (50ppbv)

Operator: jeet

Column phase: RTX-624

Column diameter: 0.32



0820

URS 3p + propylene + Naphthalene

Report Date : 07-Feb-2005 09:39

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Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Tom/15 low level MDL

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Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Batch File: /chem/msd7.i/7-04feb.b
Inst ID: msd7.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07
FILENAME:	7020415	7020416	7020417	7020418	7020419	7020420	7020421
INJ.DATE:	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005
INJ.TIME:	19:21	20:06	20:47	21:29	22:08	22:48	23:33

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
1 Dichlorodifluoromethan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Propylene	1.01	1.04	1.11	1.05	0.93	0.94	1.02	1.01	0.06	0.20
3 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Bromide	0.97	1.06	1.00	0.97	0.88	0.95	1.04	0.98	0.06	0.19
10 Trichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Ethanol	0.72	0.65	0.82	0.46	0.43	0.70	0.64	0.63	0.14	0.44
13 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppbv

Std I-D = 1243 - 99A (43ppbv)

1243 - 163 (200ppbv)

Conc Spiked: 1.0 ppbv / 0.48 ppbv ^{Naphthalene}Volume loaded: 2.5 ml / 5.0 ml ^{Naphthalene}

R.L = 0.5 ppbv

Reviewer 1	<u>N. K.</u>	Date:	<u>2/7/05</u>
Reviewer 2	<u>B. Swoboda</u>	Date:	<u>2/10/05</u>

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Batch File: /chem/msd7.i/7-04feb.b
Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
152 Acetonitrile	1.11	1.10	1.00	1.13	1.08	1.08	1.02	1.07	0.05	0.15
147 2-Methylpentane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
16 Acetone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
17 Carbon Disulfide	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
18 2-Propanol	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
19 Acrylonitrile	0.75	0.90	0.86	0.77	0.79	0.76	0.80	0.81	0.06	0.18
20 Methylene Chloride	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
21 MTBE	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
22 trans-1,2-Dichloroethe	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
151 Chlorprene	0.77	0.89	0.85	0.82	0.79	0.82	0.82	0.82	0.04	0.12
23 Tetrahydrofuran	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
24 Hexane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
25 1,1-Dichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
26 Vinyl Acetate	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
148 2,3-Dimethylpentane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
27 cis-1,2-Dichloroethene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
28 2-Butanone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
* 29 Bromochloromethane	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
30 Chloroform	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
143 Isooctane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
31 Cyclohexane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
32 1,1,1-Trichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

0822

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m

Batch File: /chem/msd7.i/7-04feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL

33 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 34 1,2-Dichloroethane-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

35 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 38 1,4-Difluorobenzene	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
39 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
40 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

42 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 45 Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

49 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 1,2-Dibromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 54 Chlorobenzene-d5	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
55 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

0823

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m

Batch File: /chem/msd7.i/7-04feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
<hr/>										
56 Ethyl Benzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
57 m,p-Xylene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
58 o-Xylene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
59 Styrene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
60 Bromoform	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
61 1,3-Dichloropropane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
62 Cumene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
<hr/>										
\$ 63 Bromofluorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
64 1,1,2,2-Tetrachloroeth	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
65 Propylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
66 4-Ethyltoluene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
67 1,3,5-Trimethylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
145 Indan	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
68 Dibromomethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
<hr/>										
69 1,2,4-Trimethylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
70 1,3-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
71 1,4-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
146 Indene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
72 alpha-chlorotoluene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
73 1,2-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
74 Naphthalene	0.43	0.27	0.24	0.26	0.29	0.25	0.28	0.29	0.06	0.20
<hr/>										
75 1,2,4-Trichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
76 Hexachlorobutadiene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

0824

SCOEPAA00032496

Report Date : 07-Feb-2005 09:39

Page 1

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

TON/15 low level MDL

0825

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Batch File: /chem/msd7.i/7-04feb.b
Inst ID: msd7.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07
FILENAME:	7020415	7020416	7020417	7020418	7020419	7020420	7020421
INJ. DATE:	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005	04-FEB-2005
INJ. TIME:	19:21	20:06	20:47	21:29	22:08	22:48	23:33

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
1 Dichlorodifluoromethan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Propylene	1.01	1.04	1.11	1.05	0.93	0.94	1.02	1.01	0.06	0.20
3 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Bromide	0.97	1.06	1.00	0.97	0.88	0.95	1.04	0.98	0.06	0.19
10 Trichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Ethanol	0.72	0.65	0.82	0.46	0.43	0.70	0.64	0.63	0.14	0.44
13 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppbv

Std I.D = 1243 - 99A (48ppbv)
1243 - 163 (200ppbv)

Conc Spiked: 1.0 ppbv / 0.48 ppbv

Volume loaded: 2.5 ml / 5.0 ml

R.L = 0.5 ppbv

Reviewer 1 N. K. Date: 2/7/05
Reviewer 2 R. S. Date: 2/10/05

SCOEPAA00032497

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m
Batch File: /chem/msd7.i/7-04feb.b
Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL

152 Acetonitrile	1.11	1.10	1.00	1.13	1.08	1.08	1.02	1.07	0.05	0.15
147 2-Methylpentane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
16 Acetone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
17 Carbon Disulfide	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

18 2-Propanol	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
19 Acrylonitrile	0.75	0.90	0.86	0.77	0.79	0.76	0.80	0.81	0.06	0.18
20 Methylene Chloride	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
21 MTBE	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
22 trans-1,2-Dichloroethe	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
151 Chlorprene	0.77	0.89	0.85	0.82	0.79	0.82	0.82	0.82	0.04	0.12
23 Tetrahydrofuran	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

24 Hexane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
25 1,1-Dichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
26 Vinyl Acetate	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
148 2,3-Dimethylpentane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
27 cis-1,2-Dichloroethene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
28 2-Butanone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
* 29 Bromochloromethane	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00

30 Chloroform	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
143 Isooctane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
31 Cyclohexane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
32 1,1,1-Trichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

0826

SCOEPAA00032498

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m

Batch File: /chem/msd7.i/7-04feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
33 Carbon Tetrachloride	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
144 Thiophene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
\$ 34 1,2-Dichloroethane-d4	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
35 Benzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
36 1,2-Dichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
37 Heptane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
* 38 1,4-Difluorobenzene	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
39 Trichloroethene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
40 1,2-Dichloropropane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
41 1,4-Dioxane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
42 Bromodichloromethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
43 cis-1,3-Dichloropropen	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
44 4-Methyl-2-pentanone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
\$ 45 Toluene-d8	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
46 Toluene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
47 trans-1,3-Dichloroprop	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
48 1,1,2-Trichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
49 Tetrachloroethene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
50 2-Hexanone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
51 Dibromochloromethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
52 Octane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
53 1,2-Dibromoethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
* 54 Chlorobenzene-d5	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
55 Chlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

0827

SCOEPAA00032499

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-04feb.b/t141J27b.m

Batch File: /chem/msd7.i/7-04feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL

56 Ethyl Benzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
57 m,p-Xylene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
58 o-Xylene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
59 Styrene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
60 Bromoform	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
61 1,3-Dichloropropane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
62 Cumene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

\$ 63 Bromofluorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
64 1,1,2,2-Tetrachloroeth	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
65 Propylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
66 4-Ethyltoluene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
67 1,3,5-Trimethylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
145 Indan	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
68 Dibromomethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

69 1,2,4-Trimethylbenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
70 1,3-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
71 1,4-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
146 Indene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
72 alpha-chlorotoluene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
73 1,2-Dichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
74 Naphthalene	0.43	0.27	0.24	0.26	0.29	0.25	0.28	0.29	0.06	0.20

75 1,2,4-Trichlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
76 Hexachlorobutadiene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

0828

SCOEPAA00032500

Report Date : 07-Feb-2005 15:08

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Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-01feb.b/t141J27a.m
Batch File: /chem/msd7.i/7-01feb.b
Inst ID: msd7.i

"No" propylene

0829

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	7020108	7020109	7020110	7020111	7020112	7020113	7020114	7020115
INJ.DATE:	01-FEB-2005	01-FEB-2005	01-FEB-2005	01-FEB-2005	01-FEB-2005	01-FEB-2005	01-FEB-2005	01-FEB-2005
INJ.TIME:	16:56	17:47	18:55	19:33	20:12	20:57	21:37	22:16

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
1 Dichlorodifluoromethan	0.20	0.19	0.22	0.20	0.21	0.20	0.21	0.21	0.20	0.01	0.03
2 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 114	0.19	0.21	0.22	0.20	0.20	0.23	0.21	0.22	0.21	0.01	0.04
4 Chloromethane	0.23	0.24	0.26	0.22	0.25	0.25	0.25	0.24	0.24	0.01	0.03
5 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Vinyl Chloride	0.20	0.18	0.21	0.21	0.22	0.21	0.21	0.19	0.21	0.01	0.04
7 1,3-Butadiene	0.24	0.21	0.23	0.20	0.17	0.24	0.22	0.23	0.22	0.02	0.07
142 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Bromomethane	0.21	0.20	0.18	0.19	0.21	0.18	0.22	0.22	0.20	0.02	0.05
9 Chloroethane	0.19	0.18	0.16	0.14	0.11	0.17	0.18	0.18	0.16	0.03	0.08
10 Trichlorofluoromethane	0.20	0.21	0.20	0.21	0.22	0.20	0.21	0.20	0.21	0.01	0.02
11 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Ethanol	0.36	0.41	0.32	0.30	0.37	0.44	0.33	0.30	0.35	0.03	0.13
13 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 1,1-Dichloroethene	0.22	0.21	0.22	0.21	0.23	0.21	0.19	0.19	0.21	0.02	0.05
15 Freon 113	0.21	0.19	0.22	0.24	0.22	0.22	0.20	0.22	0.22	0.02	0.05
147 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppbv

7-04/15

Low level MDL

Std ID # 1243-160

Std conc = 1.0 ppbv

Conc spike = 0.2 ppbv for all compound

Volume loaded = 100ml

2-11-05 LCS: 7020104: 5.0 ppbv

Reviewer 1 N. [signature] Date: 2/8/05
Reviewer 2 B. [signature] Date: 2/7/05

SCOEPAA00032501

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-01feb.b/t141J27a.m
Batch File: /chem/msd7.i/7-01feb.b
Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL

16 Acetone	0.24	0.25	0.26	0.23	0.27	0.28	0.22	0.23	0.25	0.02	0.06
17 Carbon Disulfide	0.20	0.21	0.21	0.21	0.22	0.22	0.21	0.21	0.21	0.01	0.02
18 2-Propanol	0.21	0.21	0.21	0.22	0.22	0.24	0.21	0.19	0.21	0.02	0.05
19 Acrylonitrile	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

20 Methylene Chloride	0.19	0.21	0.21	0.20	0.22	0.22	0.21	0.23	0.21	0.01	0.03
21 MTBE	0.20	0.18	0.20	0.22	0.20	0.20	0.20	0.20	0.20	0.01	0.03
22 trans-1,2-Dichloroethe	0.23	0.19	0.19	0.23	0.19	0.20	0.22	0.20	0.21	0.02	0.06
23 Tetrahydrofuran	0.22	0.27	0.24	0.23	0.22	0.26	0.23	0.23	0.24	0.02	0.05
24 Hexane	0.19	0.20	0.20	0.19	0.21	0.21	0.17	0.19	0.20	0.01	0.04
25 1,1-Dichloroethane	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.20	0.00	0.01
26 Vinyl Acetate	0.28	0.22	0.13	0.19	0.10	0.19	0.17	0.11	0.17	0.06	0.18

148 2,3-Dimethylpentane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
27 cis-1,2-Dichloroethene	0.18	0.20	0.20	0.21	0.12	0.18	0.20	0.20	0.19	0.03	0.09
28 2-Butanone	0.24	0.22	0.25	0.23	0.23	0.22	0.24	0.22	0.23	0.01	0.03
* 29 Bromochloromethane	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
30 Chloroform	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.20	0.20	0.01	0.02
143 Isooctane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
31 Cyclohexane	0.25	0.19	0.22	0.18	0.21	0.20	0.20	0.23	0.21	0.02	0.06

32 1,1,1-Trichloroethane	0.21	0.19	0.22	0.19	0.21	0.21	0.22	0.21	0.21	0.01	0.04
33 Carbon Tetrachloride	0.19	0.20	0.19	0.18	0.21	0.19	0.18	0.19	0.19	0.01	0.03
144 Thiophene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
\$ 34 1,2-Dichloroethane-d4	9.70	9.67	10.05	9.79	9.77	10.07	9.97	10.06	9.89	0.17	0.51

0830

SCOEPAA00032502

Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-01feb.b/t141J27a.m

Batch File: /chem/msd7.i/7-01feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
<hr/>											
35 Benzene	0.21	0.21	0.22	0.22	0.20	0.19	0.19	0.21	0.21	0.01	0.03
36 1,2-Dichloroethane	0.21	0.23	0.23	0.24	0.21	0.21	0.22	0.24	0.22	0.01	0.03
37 Heptane	0.21	0.19	0.21	0.20	0.20	0.19	0.21	0.20	0.20	0.01	0.02
<hr/>											
* 38 1,4-Difluorobenzene	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
39 Trichloroethene	0.22	0.23	0.23	0.20	0.24	0.19	0.22	0.20	0.22	0.02	0.05
40 1,2-Dichloropropane	0.24	0.20	0.20	0.22	0.21	0.23	0.20	0.22	0.21	0.02	0.05
41 1,4-Dioxane	0.27	0.25	0.30	0.26	0.25	0.28	0.28	0.29	0.27	0.02	0.06
42 Bromodichloromethane	0.19	0.19	0.20	0.19	0.19	0.19	0.20	0.18	0.19	0.01	0.02
43 cis-1,3-Dichloropropen	0.17	0.19	0.18	0.19	0.16	0.18	0.17	0.17	0.18	0.01	0.03
44 4-Methyl-2-pentanone	0.20	0.21	0.20	0.20	0.21	0.21	0.20	0.20	0.20	0.01	0.02
<hr/>											
\$ 45 Toluene-d8	9.83	9.90	9.76	9.62	9.59	9.45	9.62	9.80	9.70	0.15	0.45
46 Toluene	0.20	0.20	0.21	0.19	0.19	0.19	0.20	0.20	0.20	0.01	0.02
47 trans-1,3-Dichloroprop	0.18	0.19	0.17	0.16	0.20	0.18	0.20	0.18	0.18	0.01	0.04
48 1,1,2-Trichloroethane	0.20	0.20	0.22	0.24	0.22	0.20	0.22	0.20	0.21	0.01	0.04
49 Tetrachloroethene	0.22	0.21	0.22	0.22	0.22	0.20	0.21	0.23	0.22	0.01	0.03
50 2-Hexanone	0.22	0.22	0.20	0.19	0.23	0.21	0.19	0.21	0.21	0.01	0.04
51 Dibromochloromethane	0.18	0.18	0.18	0.16	0.15	0.17	0.19	0.18	0.17	0.01	0.03
<hr/>											
52 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 1,2-Dibromoethane	0.21	0.20	0.18	0.19	0.19	0.19	0.20	0.18	0.19	0.01	0.03
* 54 Chlorobenzene-d5	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00
55 Chlorobenzene	0.21	0.20	0.22	0.19	0.24	0.20	0.21	0.20	0.21	0.02	0.05
56 Ethyl Benzene	0.19	0.18	0.20	0.19	0.19	0.20	0.20	0.21	0.19	0.01	0.03
57 m,p-Xylene	0.21	0.20	0.19	0.19	0.20	0.19	0.17	0.18	0.19	0.01	0.03
58 o-Xylene	0.21	0.20	0.18	0.20	0.20	0.20	0.18	0.21	0.20	0.01	0.04

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Air Toxics Ltd.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd7.i/7-01feb.b/t141J27a.m

Batch File: /chem/msd7.i/7-01feb.b

Inst ID: msd7.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
<hr/>											
59 Styrene	0.21	0.20	0.19	0.20	0.22	0.20	0.19	0.20	0.20	0.01	0.04
60 Bromoform	0.17	0.14	0.15	0.15	0.14	0.17	0.15	0.15	0.15	0.01	0.04
61 1,3-Dichloropropane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
62 Cumene	0.20	0.21	0.20	0.21	0.19	0.18	0.18	0.20	0.20	0.01	0.03
\$ 63 Bromofluorobenzene	10.41	10.44	10.27	10.67	10.68	10.61	10.53	10.92	10.57	0.20	0.61
64 1,1,2,2-Tetrachloroeth	0.18	0.19	0.19	0.19	0.19	0.20	0.19	0.20	0.19	0.01	0.02
65 Propylbenzene	0.22	0.22	0.23	0.22	0.23	0.24	0.22	0.22	0.23	0.01	0.02
<hr/>											
66 4-Ethyltoluene	0.23	0.21	0.22	0.22	0.21	0.23	0.23	0.22	0.22	0.01	0.02
67 1,3,5-Trimethylbenzene	0.21	0.19	0.21	0.21	0.20	0.20	0.23	0.20	0.21	0.01	0.03
145 Indan	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
68 Dibromomethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
69 1,2,4-Trimethylbenzene	0.22	0.23	0.24	0.22	0.21	0.22	0.22	0.22	0.22	0.01	0.02
70 1,3-Dichlorobenzene	0.26	0.23	0.23	0.25	0.24	0.26	0.23	0.24	0.24	0.01	0.03
71 1,4-Dichlorobenzene	0.25	0.23	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.01	0.02
<hr/>											
146 Indene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
72 alpha-chlorotoluene	0.24	0.22	0.22	0.22	0.21	0.23	0.19	0.21	0.22	0.02	0.05
73 1,2-Dichlorobenzene	0.27	0.23	0.25	0.24	0.27	0.26	0.25	0.27	0.26	0.01	0.04
74 Naphthalene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
75 1,2,4-Trichlorobenzene	0.31	0.32	0.30	0.30	0.31	0.30	0.31	0.29	0.31	0.01	0.03
76 Hexachlorobutadiene	0.35	0.37	0.36	0.37	0.34	0.36	0.35	0.36	0.36	0.01	0.03

0832

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/7/05 10:06 PM

Compound	%Recovery
Freon 12	102
Freon 114	104
Chloromethane	105
Vinyl Chloride	98
Bromomethane	94
Chloroethane	94
Freon 11	104
1,1-Dichloroethene	106
Freon 113	103
1,1-Dichloroethane	99
cis-1,2-Dichloroethene	98
Chloroform	103
1,1,1-Trichloroethane	106
Carbon Tetrachloride	99
Benzene	92
1,2-Dichloroethane	106
Trichloroethene	106
1,2-Dichloropropane	102
cis-1,3-Dichloropropene	101
Toluene	97
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	103
Tetrachloroethene	104
1,2-Dibromoethane (EDB)	106
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	100
o-Xylene	106
Styrene	103
1,1,2,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	96
Methylene Chloride	93
1,2,4-Trichlorobenzene	100
Hexachlorobutadiene	98
1,3-Butadiene	104
Acetone	93
Carbon Disulfide	102

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/7/05 10:06 PM

Compound	%Recovery
2-Propanol	85
trans-1,2-Dichloroethene	102
2-Butanone (Methyl Ethyl Ketone)	98
Hexane	100
Tetrahydrofuran	92
Cyclohexane	100
1,4-Dioxane	99
Bromodichloromethane	106
4-Methyl-2-pentanone	100
2-Hexanone	98
Dibromochloromethane	106
Bromoform	112
4-Ethyltoluene	101
Ethanol	99
Methyl tert-butyl ether	103
Heptane	102
Cumene	102
Propylbenzene	100
Naphthalene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 07-FEB-2005 22:06
Lab File ID: 7020702.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-07feb.b/t141J27b.m

COMPOUND		RRF / AMOUNT	RF5	MIN	MAX	CURVE TYPE
=====		=====	=====	=====	=====	=====
\$ 34	1,2-Dichloroethane-d4	2.05961	2.08236	0.010	-1.10469	30.00000 Averaged
\$ 45	Toluene-d8	0.85314	0.85572	0.010	-0.30158	30.00000 Averaged
\$ 63	Bromofluorobenzene	0.51659	0.51342	0.010	0.61253	30.00000 Averaged
2	Propylene	2.22491	2.60635	0.010	-17.14407	30.00000 Averaged
1	Dichlorodifluoromethane/Fr1	8.10571	8.30244	0.010	-2.42704	30.00000 Averaged
3	Freon 114	4.50170	4.70475	0.010	-4.51052	30.00000 Averaged
4	Chloromethane	2.33686	2.45616	0.010	-5.10485	30.00000 Averaged
6	Vinyl Chloride	2.55925	2.49558	0.010	2.48793	30.00000 Averaged
7	1,3-Butadiene	2.13042	2.21415	0.010	-3.93026	30.00000 Averaged
8	Bromomethane	2.05768	1.93687	0.010	5.87143	30.00000 Averaged
9	Chloroethane	1.21886	1.14194	0.010	6.31094	30.00000 Averaged
10	Trichlorofluoromethane/Fr11	7.04833	7.33806	0.010	-4.11051	30.00000 Averaged
15	Freon 113	2.91336	2.99158	0.010	-2.68488	30.00000 Averaged
14	1,1-Dichloroethene	1.43350	1.51314	0.010	-5.55569	30.00000 Averaged
16	Acetone	5.26935	4.90857	0.010	6.84693	30.00000 Averaged
17	Carbon Disulfide	6.54465	6.69923	0.010	-2.36197	30.00000 Averaged
18	2-Propanol	4.98058	4.25678	0.010	14.53240	30.00000 Averaged
20	Methylene Chloride	2.08529	1.93575	0.010	7.17103	30.00000 Averaged
21	MTBE	5.79257	5.95287	0.010	-2.76719	30.00000 Averaged
22	trans-1,2-Dichloroethene	1.54701	1.58576	0.010	-2.50475	30.00000 Averaged
24	Hexane	3.95135	3.96537	0.010	-0.35481	30.00000 Averaged
25	1,1-Dichloroethane	4.27019	4.21981	0.010	1.17986	30.00000 Averaged
26	Vinyl Acetate	1.16624	0.73813	0.010	36.70869	30.00000 Averaged<-
27	cis-1,2-Dichloroethene	1.44614	1.41092	0.010	2.43521	30.00000 Averaged
28	2-Butanone	1.09194	1.07132	0.010	1.88908	30.00000 Averaged
23	Tetrahydrofuran	3.03010	2.78892	0.010	7.95933	30.00000 Averaged
30	Chloroform	4.78357	4.92561	0.010	-2.96923	30.00000 Averaged
31	Cyclohexane	2.18481	2.19550	0.010	-0.48923	30.00000 Averaged
32	1,1,1-Trichloroethane	3.91935	4.16109	0.010	-6.16771	30.00000 Averaged
33	Carbon Tetrachloride	3.59095	3.55755	0.010	0.93022	30.00000 Averaged
35	Benzene	1.45128	1.34120	0.010	7.58541	30.00000 Averaged
36	1,2-Dichloroethane	0.70572	0.75117	0.010	-6.44101	30.00000 Averaged
37	Heptane	0.84737	0.86358	0.010	-1.91275	30.00000 Averaged
39	Trichloroethene	0.50971	0.54112	0.010	-6.16190	30.00000 Averaged
40	1,2-Dichloropropane	0.41787	0.42538	0.010	-1.79679	30.00000 Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 07-FEB-2005 22:06
Lab File ID: 7020702.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-07feb.b/t141J27b.m

COMPOUND		RRF / AMOUNT	RF5	RRF	%D / %DRIFT	MAX	%D / %DRIFT	CURVE TYPE
41	1,4-Dioxane	0.29680	0.29446	0.010	0.78938	30.00000		Averaged
42	Bromodichloromethane	0.94534	1.00090	0.010	-5.87655	30.00000		Averaged
43	cis-1,3-Dichloropropene	0.63437	0.64031	0.010	-0.93607	30.00000		Averaged
44	4-Methyl-2-pentanone	0.93742	0.93706	0.010	0.03834	30.00000		Averaged
46	Toluene	1.66266	1.61267	0.010	3.00711	30.00000		Averaged
47	trans-1,3-Dichloropropene	0.84573	0.86805	0.010	-2.63913	30.00000		Averaged
48	1,1,2-Trichloroethane	0.66295	0.68277	0.010	-2.98904	30.00000		Averaged
49	Tetrachloroethene	0.86109	0.89618	0.010	-4.07517	30.00000		Averaged
50	2-Hexanone	0.65331	0.64147	0.010	1.81287	30.00000		Averaged
51	Dibromochloromethane	0.93272	0.99349	0.010	-6.51526	30.00000		Averaged
53	1,2-Dibromoethane	0.91291	0.96556	0.010	-5.76712	30.00000		Averaged
55	Chlorobenzene	1.42946	1.42915	0.010	0.02179	30.00000		Averaged
56	Ethyl Benzene	0.82104	0.84929	0.010	-3.44099	30.00000		Averaged
57	m,p-Xylene	1.00418	1.01015	0.010	-0.59440	30.00000		Averaged
58	o-Xylene	0.81778	0.86680	0.010	-5.99356	30.00000		Averaged
59	Styrene	1.26589	1.30649	0.010	-3.20665	30.00000		Averaged
60	Bromoform	0.67398	0.75179	0.010	-11.54508	30.00000		Averaged
64	1,1,2,2-Tetrachloroethane	0.97361	0.96819	0.010	0.55650	30.00000		Averaged
66	4-Ethyltoluene	2.17892	2.20755	0.010	-1.31394	30.00000		Averaged
67	1,3,5-Trimethylbenzene	1.93315	1.91960	0.010	0.70052	30.00000		Averaged
69	1,2,4-Trimethylbenzene	1.84934	1.84741	0.010	0.10408	30.00000		Averaged
70	1,3-Dichlorobenzene	1.32576	1.28483	0.010	3.08764	30.00000		Averaged
71	1,4-Dichlorobenzene	1.38083	1.32385	0.010	4.12605	30.00000		Averaged
72	alpha-chlorotoluene	1.55871	1.46496	0.010	6.01450	30.00000		Averaged
73	1,2-Dichlorobenzene	1.17952	1.13757	0.010	3.55642	30.00000		Averaged
75	1,2,4-Trichlorobenzene	0.99690	0.99291	0.010	0.40078	30.00000		Averaged
76	Hexachlorobutadiene	0.68705	0.67091	0.010	2.34865	30.00000		Averaged
62	Cumene	1.98529	2.03068	0.010	-2.28653	30.00000		Averaged
65	Propylbenzene	2.73189	2.72115	0.010	0.39301	30.00000		Averaged

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Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020702.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 07-FEB-2005 22:06
Operator : BD Inst ID: msd7.i
Smp Info : 1243-158 [50ppbv] can#10986
Misc Info : 50mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 08-Feb-2005 01:47 wwrong Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE (PPBV)		(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	509696	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	403807			26.96- 126.96	79.23	
16.331	16.331	(1.000)	49	930138			126.50- 226.50	182.49	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2384030	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	408783			0.00- 67.15	17.15	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1688502	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	1022541			9.26- 109.26	60.56	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	1061370	10.0000	10.110	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	517461			0.17- 100.17	48.75	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	2040054	10.0000	10.030	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	248978			0.00- 62.20	12.20	

0837

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1420527			19.63- 119.63	69.63	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	866917	10.0000	9.939	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1338101			104.35- 204.35	154.35	
23.953	23.953	(1.082)	176	834272			46.23- 146.23	96.23	

2 Propylene						CAS #: 115-07-1			
5.644	5.644	(0.346)	41	664224	5.00000	5.857	80.00- 120.00	100.00	
5.616	5.616	(0.344)	42	447653			19.57- 119.57	67.39	
5.644	5.644	(0.346)	39	496085			24.97- 124.97	74.69	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	2115861	5.00000	5.121	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	690187			0.00- 82.62	32.62	

3 Freon 114						CAS #: 76-14-2			
7.052	7.052	(0.432)	135	1198995	5.00000	5.226	80.00- 120.00	100.00	
7.052	7.052	(0.432)	137	384555			0.00- 81.73	32.07	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	625947	5.00000	5.255	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	200658			0.00- 84.65	32.06	

6 Vinyl Chloride						CAS #: 75-01-4			
8.046	8.046	(0.493)	62	635994	5.00000	4.876	80.00- 120.00	100.00	
8.046	8.046	(0.493)	64	195623			0.00- 80.76	30.76	

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	564271	5.00000	5.196	80.00- 120.00	100.00	
8.295	8.295	(0.508)	39	544193			48.03- 148.03	96.44	

8 Bromomethane						CAS #: 74-83-9			
9.703	9.703	(0.594)	94	439310	4.45000	4.189	80.00- 120.00	100.00	
9.731	9.731	(0.596)	96	414931			44.45- 144.45	94.45	

9 Chloroethane						CAS #: 75-00-3			
10.200	10.200	(0.625)	64	244457	4.20000	3.935	80.00- 120.00	100.00	
10.200	10.200	(0.625)	66	72386			0.00- 83.15	29.61	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	1870089	5.00000	5.206	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	1186140			13.43- 113.43	63.43	

15 Freon 113						CAS #: 76-13-1			
12.547	12.547	(0.768)	151	762398	5.00000	5.134	80.00- 120.00	100.00	

0838

AMOUNTS								
				CAL-AMT		ON-COL		
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 113 (continued)								
12.547	12.547	(0.768)	153	481243			13.12- 113.12	63.12
12.547	12.547	(0.768)	101	1029117			83.72- 183.72	134.98

14 1,1-Dichloroethene						CAS #: 75-35-4		
12.520	12.520	(0.767)	98	385620	5.00000	5.278	80.00- 120.00	100.00
12.520	12.520	(0.767)	61	1041179			236.35- 336.35	270.00
12.520	12.520	(0.767)	96	585426			123.22- 223.22	151.81

16 Acetone						CAS #: 67-64-1		
12.824	12.824	(0.785)	43	1250938	5.00000	4.658	80.00- 120.00	100.00
12.824	12.824	(0.785)	58	355950			0.00- 78.78	28.45

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	1707286	5.00000	5.118	80.00- 120.00	100.00

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	1084833	5.00000	4.273	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	225779			0.00- 69.75	20.81
13.238	13.238	(0.811)	59	42898			0.00- 53.72	3.95

20 Methylene Chloride						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	493322	5.00000	4.641	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	754337			102.91- 202.91	152.91
13.735	13.735	(0.841)	51	227610			0.00- 93.42	46.14

21 MTBE						CAS #: 1634-04-4		
14.149	14.149	(0.866)	73	1517076	5.00000	5.138	80.00- 120.00	100.00
14.149	14.149	(0.866)	57	362673			0.00- 73.89	23.91
14.149	14.149	(0.866)	41	378821			0.00- 73.24	24.97

22 trans-1,2-Dichloroethene						CAS #: 156-60-5		
14.177	14.177	(0.868)	98	404127	5.00000	5.125	80.00- 120.00	100.00
14.177	14.177	(0.868)	61	963165			191.91- 291.91	238.33
14.177	14.177	(0.868)	96	608067			105.43- 205.43	150.46

24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	1010567	5.00000	5.018	80.00- 120.00	100.00
14.563	14.563	(0.892)	43	661257			15.23- 115.23	65.43
14.563	14.563	(0.892)	86	152006			0.00- 65.23	15.04

25 1,1-Dichloroethane						CAS #: 75-34-3		
15.005	15.005	(0.919)	63	1075409	5.00000	4.941	80.00- 120.00	100.00
15.005	15.005	(0.919)	65	311295			0.00- 78.95	28.95

26 Vinyl Acetate						CAS #: 108-05-4		
15.060	15.060	(0.922)	43	188110	5.00000	3.164	80.00- 120.00	100.00

0839

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
26 Vinyl Acetate (continued)								
15.060	15.060	(0.922)	42	20002			0.00- 59.40	10.63
15.060	15.060	(0.922)	86	18773			0.00- 58.65	9.98

27 cis-1,2-Dichloroethene						CAS #: 156-59-2		
15.944	15.944	(0.976)	98	359570	5.00000	4.878	80.00- 120.00	100.00
15.944	15.944	(0.976)	61	1020486			233.81- 333.81	283.81
15.944	15.944	(0.976)	96	555287			104.43- 204.43	154.43

28 2-Butanone						CAS #: 78-93-3		
15.972	15.972	(0.978)	72	327627	6.00000	5.887	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	3457595			1005.34-1105.34	1055.34
15.972	15.972	(0.978)	57	132709			0.00- 89.21	40.51

23 Tetrahydrofuran						CAS #: 109-99-9		
16.331	16.331	(1.000)	42	710751	5.00000	4.602	80.00- 120.00	100.00
16.331	16.331	(1.000)	71	233197			0.00- 82.81	32.81
16.331	16.331	(1.000)	72	258405			0.00- 86.54	36.36

30 Chloroform						CAS #: 67-66-3		
16.414	16.414	(1.005)	83	1255281	5.00000	5.148	80.00- 120.00	100.00
16.414	16.414	(1.005)	85	799768			13.71- 113.71	63.71

31 Cyclohexane						CAS #: 110-82-7		
16.662	16.662	(1.020)	84	559519	5.00000	5.024	80.00- 120.00	100.00
16.662	16.662	(1.020)	56	801913			93.37- 193.37	143.32
16.662	16.662	(1.020)	41	446745			30.80- 130.80	79.84

32 1,1,1-Trichloroethane						CAS #: 71-55-6		
16.662	16.662	(1.020)	97	1060445	5.00000	5.308	80.00- 120.00	100.00
16.662	16.662	(1.020)	99	673356			13.50- 113.50	63.50

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.883	16.883	(1.034)	119	906634	5.00000	4.953	80.00- 120.00	100.00
16.883	16.883	(1.034)	117	1029014			63.50- 163.50	113.50

35 Benzene						CAS #: 71-43-2		
17.214	17.214	(0.967)	78	1598729	5.00000	4.621	80.00- 120.00	100.00
17.214	17.214	(0.967)	77	349984			0.00- 72.07	21.89

36 1,2-Dichloroethane						CAS #: 107-06-2		
17.325	17.325	(0.974)	62	895409	5.00000	5.322	80.00- 120.00	100.00
17.325	17.325	(0.974)	64	270717			0.00- 81.56	30.23

37 Heptane						CAS #: 142-82-5		
17.435	17.435	(0.980)	43	1029402	5.00000	5.096	80.00- 120.00	100.00

0840

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
37 Heptane (continued)								
17.435	17.435	(0.980)	57	530597			1.42- 101.42	51.54
17.435	17.435	(0.980)	100	179829			0.00- 66.93	17.47

39 Trichloroethene						CAS #: 79-01-6		
18.153	18.153	(1.020)	130	645023	5.00000	5.308	80.00- 120.00	100.00
18.153	18.153	(1.020)	95	719226			66.40- 166.40	111.50
18.153	18.153	(1.020)	97	461701			23.45- 123.45	71.58

40 1,2-Dichloropropane						CAS #: 78-87-5		
18.540	18.540	(1.042)	63	507058	5.00000	5.090	80.00- 120.00	100.00
18.540	18.540	(1.042)	62	330004			15.08- 115.08	65.08
18.540	18.540	(1.042)	41	384652			25.86- 125.86	75.86

41 1,4-Dioxane						CAS #: 123-91-1		
18.650	18.650	(1.048)	88	351002	5.00000	4.960	80.00- 120.00	100.00
18.650	18.650	(1.048)	58	270521			27.07- 127.07	77.07
18.650	18.650	(1.048)	57	91470			0.00- 75.47	26.06

42 Bromodichloromethane						CAS #: 75-27-4		
18.899	18.899	(1.062)	83	1193082	5.00000	5.294	80.00- 120.00	100.00
18.899	18.899	(1.062)	85	760103			13.71- 113.71	63.71

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
19.562	19.562	(1.099)	75	763261	5.00000	5.047	80.00- 120.00	100.00
19.562	19.562	(1.099)	77	242961			0.00- 81.83	31.83
19.534	19.534	(1.098)	39	496329			15.03- 115.03	65.03

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.727	19.727	(1.109)	43	1116991	5.00000	4.998	80.00- 120.00	100.00
19.727	19.727	(1.109)	58	434157			0.00- 87.49	38.87
19.727	19.727	(1.109)	85	178435			0.00- 66.91	15.97

46 Toluene						CAS #: 108-88-3		
20.004	20.004	(1.124)	91	1922322	5.00000	4.850	80.00- 120.00	100.00
20.004	20.004	(1.124)	92	1187919			11.80- 111.80	61.80

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
20.363	20.363	(0.920)	75	732856	5.00000	5.132	80.00- 120.00	100.00
20.363	20.363	(0.920)	77	231120			0.00- 81.54	31.54
20.363	20.363	(0.920)	39	399625			4.53- 104.53	54.53

48 1,1,2-Trichloroethane						CAS #: 79-00-5		
20.666	20.666	(0.934)	97	576427	5.00000	5.149	80.00- 120.00	100.00
20.666	20.666	(0.934)	99	360011			12.46- 112.46	62.46
20.666	20.666	(0.934)	83	456636			29.22- 129.22	79.22

0841

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
49 Tetrachloroethene						CAS #: 127-18-4			
20.804	20.804	(0.940)	166	756604	5.00000	5.204	80.00- 120.00	100.00	
20.804	20.804	(0.940)	129	575906			26.12- 126.12	76.12	
20.804	20.804	(0.940)	131	551375			22.87- 122.87	72.87	

50 2-Hexanone						CAS #: 591-78-6			
20.943	20.943	(0.946)	58	541561	5.00000	4.909	80.00- 120.00	100.00	
20.943	20.943	(0.946)	43	1051797			144.22- 244.22	194.22	
20.943	20.943	(0.946)	100	104972			0.00- 68.76	19.38	

51 Dibromochloromethane						CAS #: 124-48-1			
21.246	21.246	(0.960)	129	838755	5.00000	5.326	80.00- 120.00	100.00	
21.246	21.246	(0.960)	208	36787			0.00- 54.14	4.39	

53 1,2-Dibromoethane						CAS #: 106-93-4			
21.467	21.467	(0.970)	107	815171	5.00000	5.288	80.00- 120.00	100.00	
21.467	21.467	(0.970)	109	764100			43.73- 143.73	93.73	

55 Chlorobenzene						CAS #: 108-90-7			
22.158	22.158	(1.001)	112	1206561	5.00000	4.999	80.00- 120.00	100.00	
22.158	22.158	(1.001)	114	397960			0.00- 82.98	32.98	
22.158	22.158	(1.001)	77	855642			20.92- 120.92	70.92	

56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	717016	5.00000	5.172	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	2331434			294.68- 394.68	325.16	

57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	852818	5.00000	5.030	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	1832848			168.06- 268.06	214.92	

58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	731795	5.00000	5.300	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	1657213			176.46- 276.46	226.46	

59 Styrene						CAS #: 100-42-5			
23.097	23.097	(1.044)	104	1257422	5.70000	5.883	80.00- 120.00	100.00	
23.097	23.097	(1.044)	78	714901			6.85- 106.85	56.85	

60 Bromoform						CAS #: 75-25-2			
23.456	23.456	(1.060)	173	634703	5.00000	5.577	80.00- 120.00	100.00	
23.456	23.456	(1.060)	171	317678			0.05- 100.05	50.05	

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
24.146	24.146	(1.091)	83	817398	5.00000	4.972	80.00- 120.00	100.00	
24.146	24.146	(1.091)	85	533469			15.26- 115.26	65.26	

0842

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
66 4-Ethyltoluene						CAS #: 622-96-8		
24.450	24.450	(1.105)	105	1863723	5.00000	5.066	80.00- 120.00	100.00
24.450	24.450	(1.105)	120	455356			0.00- 74.43	24.43

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
24.560	24.560	(1.110)	105	1620627	5.00000	4.965	80.00- 120.00	100.00
24.560	24.560	(1.110)	120	635536			0.00- 89.22	39.22

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
25.195	25.195	(1.139)	105	1559680	5.00000	4.995	80.00- 120.00	100.00
25.195	25.195	(1.139)	120	581608			0.00- 87.29	37.29

70 1,3-Dichlorobenzene						CAS #: 541-73-1		
25.775	25.775	(1.165)	146	1084718	5.00000	4.846	80.00- 120.00	100.00
25.775	25.775	(1.165)	148	687930			13.36- 113.36	63.42
25.775	25.775	(1.165)	111	464874			0.00- 93.12	42.86

71 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.941	25.941	(1.172)	146	1117663	5.00000	4.794	80.00- 120.00	100.00
25.941	25.941	(1.172)	148	712213			12.91- 112.91	63.72
25.941	25.941	(1.172)	111	451942			0.00- 90.99	40.44

72 alpha-Chlorotoluene						CAS #: 100-44-7		
26.162	26.162	(1.182)	91	1236793	5.00000	4.699	80.00- 120.00	100.00
26.162	26.162	(1.182)	126	210371			0.00- 66.94	17.01

73 1,2-Dichlorobenzene						CAS #: 95-50-1		
26.604	26.604	(1.202)	146	960393	5.00000	4.822	80.00- 120.00	100.00
26.604	26.604	(1.202)	148	606484			13.15- 113.15	63.15
26.604	26.604	(1.202)	111	414584			0.00- 93.17	43.17

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
29.476	29.476	(1.332)	180	1148421	6.85000	6.822	80.00- 120.00	100.00
29.476	29.476	(1.332)	182	1067257			42.93- 142.93	92.93

76 Hexachlorobutadiene						CAS #: 87-68-3		
29.669	29.669	(1.341)	225	719348	6.35000	6.201	80.00- 120.00	100.00
29.669	29.669	(1.341)	223	454484			13.94- 113.94	63.18

62 Cumene						CAS #: 98-82-8		
23.621	23.621	(1.067)	105	1714404	5.00000	5.114	80.00- 120.00	100.00
23.621	23.621	(1.067)	120	373135			0.00- 71.76	21.76

65 Propylbenzene						CAS #: 103-65-1		
24.284	24.284	(1.097)	91	2297336	5.00000	4.980	80.00- 120.00	100.00
24.284	24.284	(1.097)	120	454029			0.00- 69.13	19.76

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 08-FEB-2005
Lab File ID: 7020702.d	Calibration Time: 01:00
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: BD	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 50mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	542490	325494	759486	509696	-6.05
38 1,4-Difluorobenze	2679294	1607576	3751012	2384030	-11.02
54 Chlorobenzene-d5	1721557	1032934	2410180	1688502	-1.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0844

Date : 07-FEB-2005 22:06

Client ID: CCV

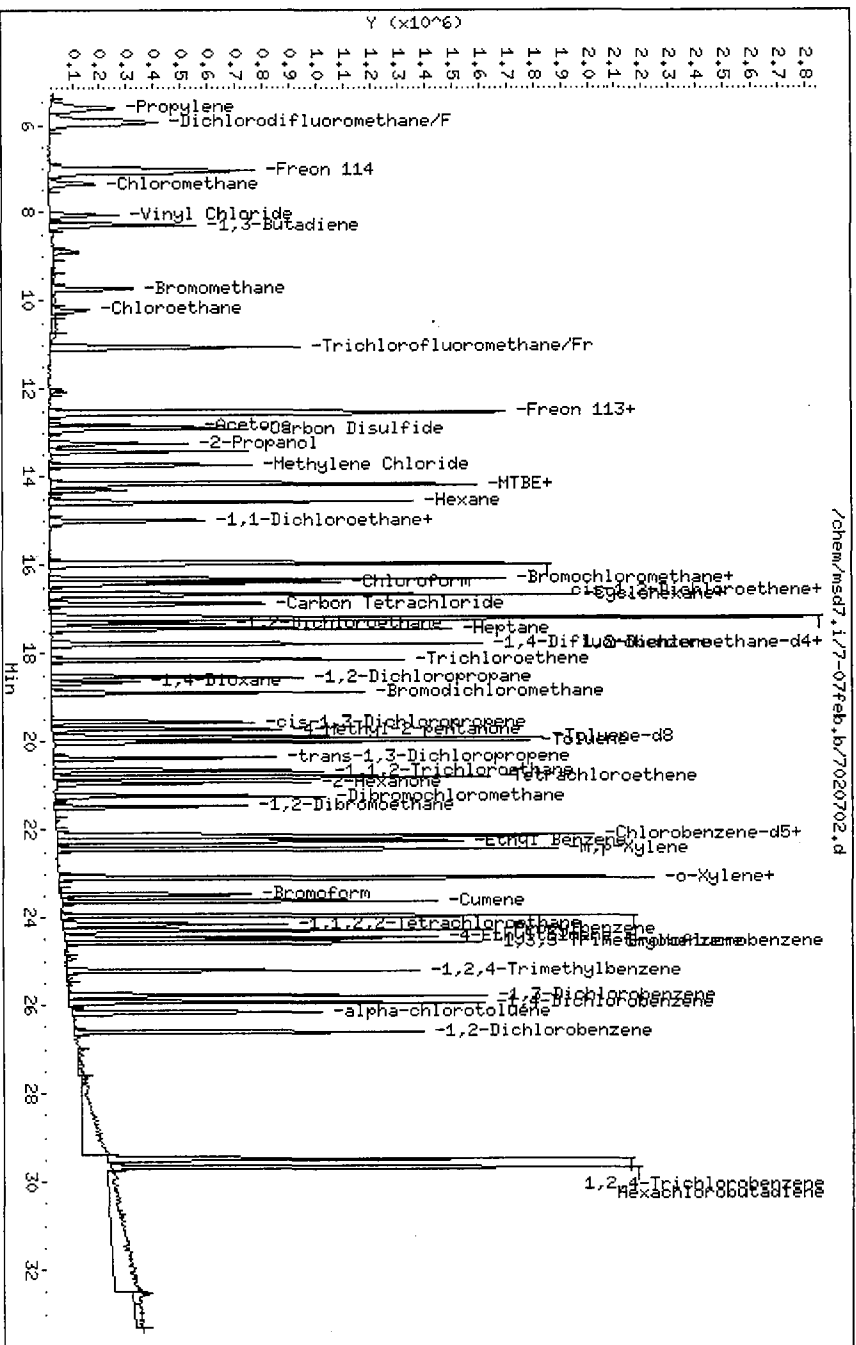
Instrument: msd7.i

Sample Info: 1243-158 [50ppbv] can#10986

Operator: BD

Column phase: RTX-624

Column diameter: 0.32



0845

SCOEPAA00032517

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 12:48 AM

Compound	%Recovery
Freon 12	110
Freon 114	114
Chloromethane	111
Vinyl Chloride	110
Bromomethane	97
Chloroethane	98
Freon 11	111
1,1-Dichloroethene	105
Freon 113	107
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	98
Chloroform	104
1,1,1-Trichloroethane	110
Carbon Tetrachloride	108
Benzene	94
1,2-Dichloroethane	110
Trichloroethene	106
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	104
Toluene	97
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	103
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	107
Chlorobenzene	106
Ethyl Benzene	106
m,p-Xylene	105
o-Xylene	104
Styrene	107
1,1,2,2-Tetrachloroethane	100
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	97
Methylene Chloride	90
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	104
1,3-Butadiene	111
Acetone	100
Carbon Disulfide	102

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 12:48 AM

Compound	%Recovery
2-Propanol	82
trans-1,2-Dichloroethene	101
2-Butanone (Methyl Ethyl Ketone)	97
Hexane	101
Tetrahydrofuran	94
Cyclohexane	101
1,4-Dioxane	102
Bromodichloromethane	105
4-Methyl-2-pentanone	103
2-Hexanone	105
Dibromochloromethane	109
Bromoform	114
4-Ethyltoluene	106
Ethanol	118
Methyl tert-butyl ether	107
Heptane	102
Cumene	107
Propylbenzene	103
Naphthalene	95

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 09-FEB-2005 00:48
Lab File ID: 7020902.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-09feb.b/t141J27b.m

COMPOUND	RRF / AMOUNT	RF5	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
34 1,2-Dichloroethane-d4	2.05961	2.19079	0.010	-6.36952	30.00000	Averaged	
45 Toluene-d8	0.85314	0.82661	0.010	3.11030	30.00000	Averaged	
63 Bromofluorobenzene	0.51659	0.53599	0.010	-3.75671	30.00000	Averaged	
2 Propylene	2.22491	2.83491	0.010	-27.41660	30.00000	Averaged	
1 Dichlorodifluoromethane/Fr1	8.10571	8.91085	0.010	-9.93297	30.00000	Averaged	
3 Freon 114	4.50170	5.14994	0.010	-14.39994	30.00000	Averaged	
4 Chloromethane	2.33686	2.59179	0.010	-10.90865	30.00000	Averaged	
6 Vinyl Chloride	2.55925	2.83009	0.010	-10.58251	30.00000	Averaged	
7 1,3-Butadiene	2.13042	2.37294	0.010	-11.38367	30.00000	Averaged	
8 Bromomethane	2.05768	2.00286	0.010	2.66452	30.00000	Averaged	
9 Chloroethane	1.21886	1.19076	0.010	2.30488	30.00000	Averaged	
10 Trichlorofluoromethane/Fr11	7.04833	7.85000	0.010	-11.37380	30.00000	Averaged	
15 Freon 113	2.91336	3.12657	0.010	-7.31824	30.00000	Averaged	
14 1,1-Dichloroethene	1.43350	1.51072	0.010	-5.38734	30.00000	Averaged	
16 Acetone	5.26935	5.27332	0.010	-0.07517	30.00000	Averaged	
17 Carbon Disulfide	6.54465	6.70506	0.010	-2.45104	30.00000	Averaged	
18 2-Propanol	4.98058	4.06977	0.010	18.28719	30.00000	Averaged	
20 Methylene Chloride	2.08529	1.87796	0.010	9.94244	30.00000	Averaged	
21 MTBE	5.79257	6.18546	0.010	-6.78266	30.00000	Averaged	
22 trans-1,2-Dichloroethene	1.54701	1.56064	0.010	-0.88093	30.00000	Averaged	
24 Hexane	3.95135	3.98009	0.010	-0.72736	30.00000	Averaged	
25 1,1-Dichloroethane	4.27019	4.35398	0.010	-1.96217	30.00000	Averaged	
26 Vinyl Acetate	1.16624	0.75155	0.010	35.55782	30.00000	Averaged	<-
27 cis-1,2-Dichloroethene	1.44614	1.42283	0.010	1.61164	30.00000	Averaged	
28 2-Butanone	1.09194	1.05535	0.010	3.35109	30.00000	Averaged	
23 Tetrahydrofuran	3.03010	2.84401	0.010	6.14125	30.00000	Averaged	
30 Chloroform	4.78357	4.97899	0.010	-4.08521	30.00000	Averaged	
31 Cyclohexane	2.18481	2.21609	0.010	-1.43157	30.00000	Averaged	
32 1,1,1-Trichloroethane	3.91935	4.31980	0.010	-10.21703	30.00000	Averaged	
33 Carbon Tetrachloride	3.59095	3.86705	0.010	-7.68866	30.00000	Averaged	
35 Benzene	1.45128	1.36305	0.010	6.07951	30.00000	Averaged	
36 1,2-Dichloroethane	0.70572	0.77960	0.010	-10.46927	30.00000	Averaged	
37 Heptane	0.84737	0.86444	0.010	-2.01418	30.00000	Averaged	
39 Trichloroethene	0.50971	0.54324	0.010	-6.57763	30.00000	Averaged	
40 1,2-Dichloropropane	0.41787	0.41977	0.010	-0.45368	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 09-FEB-2005 00:48
Lab File ID: 7020902.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-09feb.b/t141J27b.m

				MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE	
=====	=====	=====	=====	=====	=====	=====	=====
41 1,4-Dioxane	0.29680	0.30313	0.010	-2.13170	30.00000	Averaged	
42 Bromodichloromethane	0.94534	0.99505	0.010	-5.25799	30.00000	Averaged	
43 cis-1,3-Dichloropropene	0.63437	0.66264	0.010	-4.45603	30.00000	Averaged	
44 4-Methyl-2-pentanone	0.93742	0.96189	0.010	-2.61010	30.00000	Averaged	
46 Toluene	1.66266	1.61186	0.010	3.05544	30.00000	Averaged	
47 trans-1,3-Dichloropropene	0.84573	0.90279	0.010	-6.74600	30.00000	Averaged	
48 1,1,2-Trichloroethane	0.66295	0.68541	0.010	-3.38728	30.00000	Averaged	
49 Tetrachloroethene	0.86109	0.90520	0.010	-5.12252	30.00000	Averaged	
50 2-Hexanone	0.65331	0.68616	0.010	-5.02838	30.00000	Averaged	
51 Dibromochloromethane	0.93272	1.01596	0.010	-8.92457	30.00000	Averaged	
53 1,2-Dibromoethane	0.91291	0.97461	0.010	-6.75950	30.00000	Averaged	
55 Chlorobenzene	1.42946	1.51324	0.010	-5.86112	30.00000	Averaged	
56 Ethyl Benzene	0.82104	0.87032	0.010	-6.00241	30.00000	Averaged	
57 m,p-Xylene	1.00418	1.05901	0.010	-5.46071	30.00000	Averaged	
58 o-Xylene	0.81778	0.85016	0.010	-3.95922	30.00000	Averaged	
59 Styrene	1.26589	1.35305	0.010	-6.88497	30.00000	Averaged	
60 Bromoform	0.67398	0.76896	0.010	-14.09128	30.00000	Averaged	
64 1,1,2,2-Tetrachloroethane	0.97361	0.97333	0.010	0.02858	30.00000	Averaged	
66 4-Ethyltoluene	2.17892	2.31003	0.010	-6.01755	30.00000	Averaged	
67 1,3,5-Trimethylbenzene	1.93315	1.94883	0.010	-0.81129	30.00000	Averaged	
69 1,2,4-Trimethylbenzene	1.84934	1.92937	0.010	-4.32784	30.00000	Averaged	
70 1,3-Dichlorobenzene	1.32576	1.34772	0.010	-1.65586	30.00000	Averaged	
71 1,4-Dichlorobenzene	1.38083	1.34278	0.010	2.75556	30.00000	Averaged	
72 alpha-chlorotoluene	1.55871	1.55407	0.010	0.29753	30.00000	Averaged	
73 1,2-Dichlorobenzene	1.17952	1.14495	0.010	2.93043	30.00000	Averaged	
75 1,2,4-Trichlorobenzene	0.99690	1.06017	0.010	-6.34647	30.00000	Averaged	
76 Hexachlorobutadiene	0.68705	0.71827	0.010	-4.54449	30.00000	Averaged	
62 Cumene	1.98529	2.12949	0.010	-7.26364	30.00000	Averaged	
65 Propylbenzene	2.73189	2.81777	0.010	-3.14366	30.00000	Averaged	

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AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020902.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-FEB-2005 00:48
Operator : WW Inst ID: msd7.i
Smp Info : #1243-158 [50ppbv]
Misc Info : 50mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 09-Feb-2005 23:48 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	474591	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	374709			26.96- 126.96	78.95
16.331	16.331	(1.000)	49	876244			126.50- 226.50	184.63

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2234295	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	394116			0.00- 67.64	17.64

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1557243	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	937760			9.26- 109.26	60.22

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
17.214	17.214	(1.054)	65	1039731	10.0000	10.637	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	482867			0.17- 100.17	46.44

\$ 45 Toluene-d8						CAS #: 2037-26-5		
19.893	19.893	(1.118)	98	1846887	10.0000	9.689	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	223608			0.00- 62.11	12.11

0850

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1334164			22.24- 122.24	72.24

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.953	23.953	(1.082)	174	834674	10.0000	10.376	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1232669			97.68- 197.68	147.68
23.953	23.953	(1.082)	176	782737			43.78- 143.78	93.78

2 Propylene						CAS #: 115-07-1		
5.616	5.616	(0.344)	41	672711	5.00000	6.371	80.00- 120.00	100.00
5.616	5.616	(0.344)	42	452807			19.57- 119.57	67.31
5.644	5.644	(0.346)	39	482694			24.97- 124.97	71.75

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	2114505	5.00000	5.497	80.00- 120.00	100.00
5.920	5.920	(0.362)	87	669618			0.00- 81.67	31.67

3 Freon 114						CAS #: 76-14-2		
7.052	7.052	(0.432)	135	1222057	5.00000	5.720	80.00- 120.00	100.00
7.052	7.052	(0.432)	137	373371			0.00- 81.73	30.55

4 Chloromethane						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	615019	5.00000	5.545	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	194975			0.00- 84.65	31.70

6 Vinyl Chloride						CAS #: 75-01-4		
8.046	8.046	(0.493)	62	671567	5.00000	5.529	80.00- 120.00	100.00
8.074	8.074	(0.494)	64	190681			0.00- 78.39	28.39

7 1,3-Butadiene						CAS #: 106-99-0		
8.295	8.295	(0.508)	54	563087	5.00000	5.569	80.00- 120.00	100.00
8.295	8.295	(0.508)	39	545129			48.03- 148.03	96.81

8 Bromomethane						CAS #: 74-83-9		
9.731	9.731	(0.596)	94	422989	4.45000	4.331	80.00- 120.00	100.00
9.731	9.731	(0.596)	96	393367			43.00- 143.00	93.00

9 Chloroethane						CAS #: 75-00-3		
10.200	10.200	(0.625)	64	237353	4.20000	4.103	80.00- 120.00	100.00
10.200	10.200	(0.625)	66	76106			0.00- 83.15	32.06

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	1862769	5.00000	5.569	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	1188009			13.78- 113.78	63.78

15 Freon 113						CAS #: 76-13-1		
12.547	12.547	(0.768)	151	741920	5.00000	5.366	80.00- 120.00	100.00

0851

AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
15 Freon 113 (continued)									
12.547	12.547	(0.768)	153	450851			10.77- 110.77	60.77	
12.547	12.547	(0.768)	101	967411			83.72- 183.72	130.39	

14 1,1-Dichloroethene						CAS #: 75-35-4			
12.520	12.520	(0.767)	98	358488	5.00000	5.269	80.00- 120.00	100.00	
12.520	12.520	(0.767)	61	1010712			236.35- 336.35	281.94	
12.520	12.520	(0.767)	96	557434			123.22- 223.22	155.50	

16 Acetone						CAS #: 67-64-1			
12.824	12.824	(0.785)	43	1251334	5.00000	5.004	80.00- 120.00	100.00	
12.824	12.824	(0.785)	58	338825			0.00- 78.78	27.08	

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	1591081	5.00000	5.122	80.00- 120.00	100.00	

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	965739	5.00000	4.086	80.00- 120.00	100.00	
13.238	13.238	(0.811)	43	190222			0.00- 69.75	19.70	
13.238	13.238	(0.811)	59	37618			0.00- 53.72	3.90	

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	445631	5.00000	4.503	80.00- 120.00	100.00	
13.735	13.735	(0.841)	49	719996			111.57- 211.57	161.57	
13.735	13.735	(0.841)	51	203860			0.00- 93.42	45.75	

21 MTBE						CAS #: 1634-04-4			
14.149	14.149	(0.866)	73	1467783	5.00000	5.339	80.00- 120.00	100.00	
14.149	14.149	(0.866)	57	342179			0.00- 73.89	23.31	
14.149	14.149	(0.866)	41	350027			0.00- 73.24	23.85	

22 trans-1,2-Dichloroethene						CAS #: 156-60-5			
14.177	14.177	(0.868)	98	370332	5.00000	5.044	80.00- 120.00	100.00	
14.177	14.177	(0.868)	61	911211			191.91- 291.91	246.05	
14.177	14.177	(0.868)	96	572150			105.43- 205.43	154.50	

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	944458	5.00000	5.036	80.00- 120.00	100.00	
14.563	14.563	(0.892)	43	613686			15.23- 115.23	64.98	
14.563	14.563	(0.892)	86	140980			0.00- 65.23	14.93	

25 1,1-Dichloroethane						CAS #: 75-34-3			
15.005	15.005	(0.919)	63	1033179	5.00000	5.098	80.00- 120.00	100.00	
15.005	15.005	(0.919)	65	308594			0.00- 79.87	29.87	

26 Vinyl Acetate						CAS #: 108-05-4			
15.060	15.060	(0.922)	43	178339	5.00000	3.222	80.00- 120.00	100.00	

0852

AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	==	=====	=====	=====	=====	=====	=====
26 Vinyl Acetate (continued)									
15.060	15.060	(0.922)	42	17138			0.00-	59.40	9.61
15.060	15.060	(0.922)	86	17224			0.00-	58.65	9.66

27 cis-1,2-Dichloroethene						CAS #: 156-59-2			
15.944	15.944	(0.976)	98	337631	5.00000	4.919	80.00-	120.00	100.00
15.944	15.944	(0.976)	61	974592			238.66-	338.66	288.66
15.944	15.944	(0.976)	96	526882			106.05-	206.05	156.05

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	300516	6.00000	5.799	80.00-	120.00	100.00
15.972	15.972	(0.978)	43	3293950			1046.10-	1146.10	1096.10
15.972	15.972	(0.978)	57	125941			0.00-	89.21	41.91

23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	674871	5.00000	4.693	80.00-	120.00	100.00
16.331	16.331	(1.000)	71	218611			0.00-	82.39	32.39
16.331	16.331	(1.000)	72	242813			0.00-	86.54	35.98

30 Chloroform						CAS #: 67-66-3			
16.414	16.414	(1.005)	83	1181492	5.00000	5.204	80.00-	120.00	100.00
16.414	16.414	(1.005)	85	756291			14.01-	114.01	64.01

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	525868	5.00000	5.072	80.00-	120.00	100.00
16.662	16.662	(1.020)	56	765976			93.37-	193.37	145.66
16.662	16.662	(1.020)	41	427007			30.80-	130.80	81.20

32 1,1,1-Trichloroethane						CAS #: 71-55-6			
16.662	16.662	(1.020)	97	1025068	5.00000	5.511	80.00-	120.00	100.00
16.662	16.662	(1.020)	99	652654			13.67-	113.67	63.67

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	917633	5.00000	5.384	80.00-	120.00	100.00
16.883	16.883	(1.034)	117	1027849			62.01-	162.01	112.01

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	1522732	5.00000	4.696	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	336554			0.00-	72.07	22.10

36 1,2-Dichloroethane						CAS #: 107-06-2			
17.325	17.325	(0.974)	62	870929	5.00000	5.523	80.00-	120.00	100.00
17.325	17.325	(0.974)	64	269106			0.00-	81.56	30.90

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	965708	5.00000	5.101	80.00-	120.00	100.00

0853

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
37 Heptane (continued)									
17.435	17.435	(0.980)	57	502479			1.42-	101.42	52.03
17.435	17.435	(0.980)	100	166978			0.00-	66.93	17.29

39 Trichloroethene						CAS #: 79-01-6			
18.153	18.153	(1.020)	130	606878	5.00000	5.329	80.00-	120.00	100.00
18.153	18.153	(1.020)	95	668497			66.40-	166.40	110.15
18.153	18.153	(1.020)	97	451018			23.45-	123.45	74.32

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.540	18.540	(1.042)	63	468941	5.00000	5.023	80.00-	120.00	100.00
18.540	18.540	(1.042)	62	321190			18.49-	118.49	68.49
18.540	18.540	(1.042)	41	369371			28.77-	128.77	78.77

41 1,4-Dioxane						CAS #: 123-91-1			
18.650	18.650	(1.048)	88	338642	5.00000	5.106	80.00-	120.00	100.00
18.650	18.650	(1.048)	58	264199			28.02-	128.02	78.02
18.650	18.650	(1.048)	57	89161			0.00-	75.47	26.33

42 Bromodichloromethane						CAS #: 75-27-4			
18.899	18.899	(1.062)	83	1111615	5.00000	5.263	80.00-	120.00	100.00
18.899	18.899	(1.062)	85	724531			15.18-	115.18	65.18

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.562	19.562	(1.099)	75	740268	5.00000	5.223	80.00-	120.00	100.00
19.562	19.562	(1.099)	77	228351			0.00-	80.85	30.85
19.534	19.534	(1.098)	39	472224			13.79-	113.79	63.79

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	1074571	5.00000	5.130	80.00-	120.00	100.00
19.727	19.727	(1.109)	58	391381			0.00-	87.49	36.42
19.727	19.727	(1.109)	85	173502			0.00-	66.91	16.15

46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	1800688	5.00000	4.847	80.00-	120.00	100.00
20.004	20.004	(1.124)	92	1101618			11.18-	111.18	61.18

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.363	20.363	(0.920)	75	702930	5.00000	5.337	80.00-	120.00	100.00
20.363	20.363	(0.920)	77	222531			0.00-	81.66	31.66
20.363	20.363	(0.920)	39	389726			5.44-	105.44	55.44

48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.666	20.666	(0.934)	97	533673	5.00000	5.169	80.00-	120.00	100.00
20.666	20.666	(0.934)	99	332008			12.21-	112.21	62.21
20.666	20.666	(0.934)	83	436771			31.84-	131.84	81.84

0854

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.804	20.804	(0.940)	166	704810	5.00000	5.256	80.00- 120.00	100.00
20.804	20.804	(0.940)	129	549840			28.01- 128.01	78.01
20.804	20.804	(0.940)	131	534670			25.86- 125.86	75.86

50 2-Hexanone						CAS #: 591-78-6		
20.942	20.942	(0.946)	58	534262	5.00000	5.251	80.00- 120.00	100.00
20.942	20.942	(0.946)	43	1039566			144.58- 244.58	194.58
20.942	20.942	(0.946)	100	99748			0.00- 68.76	18.67

51 Dibromochloromethane						CAS #: 124-48-1		
21.246	21.246	(0.960)	129	791050	5.00000	5.446	80.00- 120.00	100.00
21.246	21.246	(0.960)	208	43111			0.00- 54.14	5.45

53 1,2-Dibromoethane						CAS #: 106-93-4		
21.467	21.467	(0.970)	107	758856	5.00000	5.338	80.00- 120.00	100.00
21.467	21.467	(0.970)	109	709421			43.49- 143.49	93.49

55 Chlorobenzene						CAS #: 108-90-7		
22.158	22.158	(1.001)	112	1178244	5.00000	5.293	80.00- 120.00	100.00
22.158	22.158	(1.001)	114	380011			0.00- 82.25	32.25
22.158	22.158	(1.001)	77	818973			19.51- 119.51	69.51

56 Ethyl Benzene						CAS #: 100-41-4		
22.268	22.268	(1.006)	106	677652	5.00000	5.300	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	2232168			294.68- 394.68	329.40

57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	824571	5.00000	5.273	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	1722101			168.06- 268.06	208.85

58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	661954	5.00000	5.198	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	1565387			186.48- 286.48	236.48

59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	1201005	5.70000	6.092	80.00- 120.00	100.00
23.096	23.096	(1.044)	78	676950			6.37- 106.37	56.37

60 Bromoform						CAS #: 75-25-2		
23.455	23.455	(1.060)	173	598725	5.00000	5.704	80.00- 120.00	100.00
23.455	23.455	(1.060)	171	308435			1.52- 101.52	51.52

64 1,1,1,2-Tetrachloroethane						CAS #: 79-34-5		
24.146	24.146	(1.091)	83	757858	5.00000	4.998	80.00- 120.00	100.00
24.146	24.146	(1.091)	85	494432			15.24- 115.24	65.24

0855

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
66 4-Ethyltoluene						CAS #: 622-96-8			
24.450	24.450	(1.105)	105	1798642	5.00000	5.301	80.00- 120.00	100.00	
24.450	24.450	(1.105)	120	430619			0.00- 73.94	23.94	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	1517400	5.00000	5.040	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	586326			0.00- 88.64	38.64	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	1502252	5.00000	5.216	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	557155			0.00- 87.09	37.09	

70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.775	25.775	(1.165)	146	1049361	5.00000	5.083	80.00- 120.00	100.00	
25.775	25.775	(1.165)	148	649356			13.36- 113.36	61.88	
25.775	25.775	(1.165)	111	429184			0.00- 93.12	40.90	

71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.941	25.941	(1.172)	146	1045514	5.00000	4.862	80.00- 120.00	100.00	
25.941	25.941	(1.172)	148	669822			12.91- 112.91	64.07	
25.941	25.941	(1.172)	111	428137			0.00- 90.99	40.95	

72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.162	26.162	(1.182)	91	1210032	5.00000	4.985	80.00- 120.00	100.00	
26.162	26.162	(1.182)	126	200708			0.00- 66.94	16.59	

73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.604	26.604	(1.202)	146	891484	5.00000	4.853	80.00- 120.00	100.00	
26.604	26.604	(1.202)	148	561736			13.01- 113.01	63.01	
26.604	26.604	(1.202)	111	383868			0.00- 93.06	43.06	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.476	29.476	(1.332)	180	1130897	6.85000	7.285	80.00- 120.00	100.00	
29.476	29.476	(1.332)	182	1074239			44.99- 144.99	94.99	

76 Hexachlorobutadiene						CAS #: 87-68-3			
29.669	29.669	(1.341)	225	710259	6.35000	6.638	80.00- 120.00	100.00	
29.669	29.669	(1.341)	223	442623			13.94- 113.94	62.32	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	1658067	5.00000	5.363	80.00- 120.00	100.00	
23.621	23.621	(1.067)	120	342373			0.00- 70.65	20.65	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	2193977	5.00000	5.157	80.00- 120.00	100.00	
24.284	24.284	(1.097)	120	422991			0.00- 69.13	19.28	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 09-FEB-2005
Lab File ID: 7020902.d	Calibration Time: 04:31
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 50mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	454069	272441	635697	474591	4.52
38 1,4-Difluorobenze	2118699	1271219	2966179	2234295	5.46
54 Chlorobenzene-d5	1488058	892835	2083281	1557243	4.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

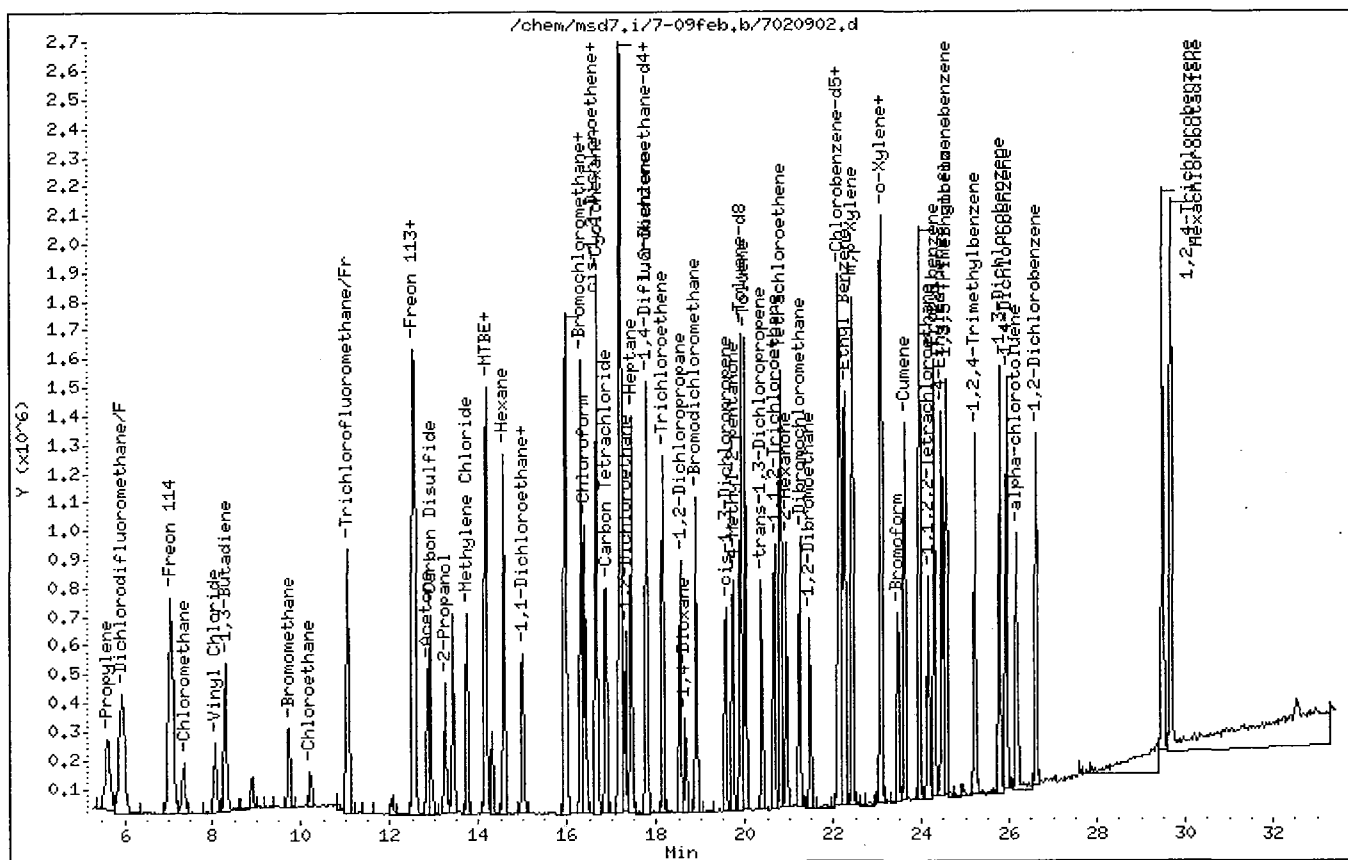
0857

SCOEPAA00032529

Instrument: msd7.i

Operator: WW

Column diameter: 0.32



0858

SCOEPA00032530

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 12:57 AM

Compound	%Recovery
Freon 12	120
Freon 114	125
Chloromethane	120
Vinyl Chloride	114
Bromomethane	109
Chloroethane	104
Freon 11	123
1,1-Dichloroethene	111
Freon 113	118
1,1-Dichloroethane	113
cis-1,2-Dichloroethene	110
Chloroform	116
1,1,1-Trichloroethane	125
Carbon Tetrachloride	123
Benzene	102
1,2-Dichloroethane	126
Trichloroethene	120
1,2-Dichloropropane	111
cis-1,3-Dichloropropene	118
Toluene	109
trans-1,3-Dichloropropene	126
1,1,2-Trichloroethane	118
Tetrachloroethene	122
1,2-Dibromoethane (EDB)	123
Chlorobenzene	118
Ethyl Benzene	118
m,p-Xylene	114
o-Xylene	115
Styrene	120
1,1,2,2-Tetrachloroethane	113
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	108
Methylene Chloride	107
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	116
1,3-Butadiene	122
Acetone	107
Carbon Disulfide	114

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0502032-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 12:57 AM

Compound	%Recovery
2-Propanol	113
trans-1,2-Dichloroethene	113
2-Butanone (Methyl Ethyl Ketone)	110
Hexane	113
Tetrahydrofuran	105
Cyclohexane	112
1,4-Dioxane	112
Bromodichloromethane	121
4-Methyl-2-pentanone	115
2-Hexanone	120
Dibromochloromethane	127
Bromoform	131 Q
4-Ethyltoluene	117
Ethanol	101
Methyl tert-butyl ether	119
Heptane	115
Cumene	118
Propylbenzene	114
Naphthalene	95

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 10-FEB-2005 00:57
Lab File ID: 7021002.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-10feb.b/t141J27b.m

COMPOUND	RRF / AMOUNT	RF5	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
34 1,2-Dichloroethane-d4	2.05961	2.19561	0.010	-6.60333	30.00000	Averaged	
45 Toluene-d8	0.85314	0.83986	0.010	1.55690	30.00000	Averaged	
63 Bromofluorobenzene	0.51659	0.51858	0.010	-0.38484	30.00000	Averaged	
2 Propylene	2.22491	2.98389	0.010	-34.11257	30.00000	Averaged	<-
1 Dichlorodifluoromethane/Fr1	8.10571	9.69954	0.010	-19.66300	30.00000	Averaged	
3 Freon 114	4.50170	5.64003	0.010	-25.28668	30.00000	Averaged	
4 Chloromethane	2.33686	2.81218	0.010	-20.34005	30.00000	Averaged	
6 Vinyl Chloride	2.55925	2.92444	0.010	-14.26927	30.00000	Averaged	
7 1,3-Butadiene	2.13042	2.60046	0.010	-22.06360	30.00000	Averaged	
8 Bromomethane	2.05768	2.24858	0.010	-9.27721	30.00000	Averaged	
9 Chloroethane	1.21886	1.26774	0.010	-4.01081	30.00000	Averaged	
10 Trichlorofluoromethane/Fr11	7.04833	8.66715	0.010	-22.96739	30.00000	Averaged	
15 Freon 113	2.91336	3.44912	0.010	-18.38984	30.00000	Averaged	
14 1,1-Dichloroethene	1.43350	1.59337	0.010	-11.15300	30.00000	Averaged	
16 Acetone	5.26935	5.65114	0.010	-7.24539	30.00000	Averaged	
17 Carbon Disulfide	6.54465	7.43659	0.010	-13.62857	30.00000	Averaged	
18 2-Propanol	4.98058	5.62008	0.010	-12.83974	30.00000	Averaged	
20 Methylene Chloride	2.08529	2.22532	0.010	-6.71520	30.00000	Averaged	
21 MTBE	5.79257	6.89215	0.010	-18.98246	30.00000	Averaged	
22 trans-1,2-Dichloroethene	1.54701	1.75042	0.010	-13.14867	30.00000	Averaged	
24 Hexane	3.95135	4.47405	0.010	-13.22837	30.00000	Averaged	
25 1,1-Dichloroethane	4.27019	4.83819	0.010	-13.30166	30.00000	Averaged	
26 Vinyl Acetate	1.16624	1.72478	0.010	-47.89246	30.00000	Averaged	<-
27 cis-1,2-Dichloroethene	1.44614	1.58380	0.010	-9.51915	30.00000	Averaged	
28 2-Butanone	1.09194	1.20273	0.010	-10.14588	30.00000	Averaged	
23 Tetrahydrofuran	3.03010	3.17240	0.010	-4.69633	30.00000	Averaged	
30 Chloroform	4.78357	5.54310	0.010	-15.87781	30.00000	Averaged	
31 Cyclohexane	2.18481	2.44563	0.010	-11.93791	30.00000	Averaged	
32 1,1,1-Trichloroethane	3.91935	4.91363	0.010	-25.36832	30.00000	Averaged	
33 Carbon Tetrachloride	3.59095	4.42978	0.010	-23.35958	30.00000	Averaged	
35 Benzene	1.45128	1.48748	0.010	-2.49409	30.00000	Averaged	
36 1,2-Dichloroethane	0.70572	0.88712	0.010	-25.70494	30.00000	Averaged	
37 Heptane	0.84737	0.97169	0.010	-14.67083	30.00000	Averaged	
39 Trichloroethene	0.50971	0.61340	0.010	-20.34245	30.00000	Averaged	
40 1,2-Dichloropropane	0.41787	0.46544	0.010	-11.38395	30.00000	Averaged	

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 10-FEB-2005 00:57
Lab File ID: 7021002.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd7.i/7-10feb.b/t141J27b.m

COMPOUND	RRF / AMOUNT	RF5	MIN	MAX	CURVE TYPE	
41 1,4-Dioxane	0.29680	0.33303	0.010	-12.20567	30.00000	Averaged
42 Bromodichloromethane	0.94534	1.14712	0.010	-21.34466	30.00000	Averaged
43 cis-1,3-Dichloropropene	0.63437	0.74965	0.010	-18.17242	30.00000	Averaged
44 4-Methyl-2-pentanone	0.93742	1.07651	0.010	-14.83721	30.00000	Averaged
46 Toluene	1.66266	1.81112	0.010	-8.92854	30.00000	Averaged
47 trans-1,3-Dichloropropene	0.84573	1.06275	0.010	-25.66041	30.00000	Averaged
48 1,1,2-Trichloroethane	0.66295	0.78133	0.010	-17.85559	30.00000	Averaged
49 Tetrachloroethene	0.86109	1.04744	0.010	-21.64136	30.00000	Averaged
50 2-Hexanone	0.65331	0.78675	0.010	-20.42508	30.00000	Averaged
51 Dibromochloromethane	0.93272	1.18247	0.010	-26.77647	30.00000	Averaged
53 1,2-Dibromoethane	0.91291	1.12045	0.010	-22.73435	30.00000	Averaged
55 Chlorobenzene	1.42946	1.68703	0.010	-18.01880	30.00000	Averaged
56 Ethyl Benzene	0.82104	0.97034	0.010	-18.18386	30.00000	Averaged
57 m,p-Xylene	1.00418	1.14818	0.010	-14.34033	30.00000	Averaged
58 o-Xylene	0.81778	0.94319	0.010	-15.33451	30.00000	Averaged
59 Styrene	1.26589	1.51828	0.010	-19.93771	30.00000	Averaged
60 Bromoform	0.67398	0.88457	0.010	-31.24598	30.00000	Averaged
64 1,1,2,2-Tetrachloroethane	0.97361	1.10430	0.010	-13.42313	30.00000	Averaged
66 4-Ethyltoluene	2.17892	2.54716	0.010	-16.90013	30.00000	Averaged
67 1,3,5-Trimethylbenzene	1.93315	2.19399	0.010	-13.49333	30.00000	Averaged
69 1,2,4-Trimethylbenzene	1.84934	2.14824	0.010	-16.16257	30.00000	Averaged
70 1,3-Dichlorobenzene	1.32576	1.43129	0.010	-7.96001	30.00000	Averaged
71 1,4-Dichlorobenzene	1.38083	1.46511	0.010	-6.10380	30.00000	Averaged
72 alpha-chlorotoluene	1.55871	1.76861	0.010	-13.46665	30.00000	Averaged
73 1,2-Dichlorobenzene	1.17952	1.27255	0.010	-7.88766	30.00000	Averaged
75 1,2,4-Trichlorobenzene	0.99690	1.18073	0.010	-18.43983	30.00000	Averaged
76 Hexachlorobutadiene	0.68705	0.79374	0.010	-15.52888	30.00000	Averaged
62 Cumene	1.98529	2.34046	0.010	-17.89034	30.00000	Averaged
65 Propylbenzene	2.73189	3.12142	0.010	-14.25848	30.00000	Averaged

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021002.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-FEB-2005 00:57
Operator : WW Inst ID: msd7.i
Smp Info : #1243-158 [50ppbv]
Misc Info : 50mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 05:16 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT-ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	464988	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	368516			26.96- 126.96	79.25	
16.331	16.331	(1.000)	49	862715			126.50- 226.50	185.53	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2172345	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	385109			0.00- 67.73	17.73	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1516792	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	923661			9.26- 109.26	60.90	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	1020932	10.0000	10.660	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	476998			0.17- 100.17	46.72	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1824468	10.0000	9.844	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	216644			0.00- 61.87	11.87	

0863

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1304264			21.49- 121.49	71.49

\$ 63 Bromofluorobenzene CAS #: 460-00-4								
23.953	23.953	(1.082)	174	786572	10.0000	10.038	80.00- 120.00	100.00
23.953	23.953	(1.082)	95	1196504			102.12- 202.12	152.12
23.953	23.953	(1.082)	176	763340			47.05- 147.05	97.05

2 Propylene CAS #: 115-07-1								
5.644	5.644	(0.346)	41	693736	5.00000	6.706	80.00- 120.00	100.00
5.644	5.644	(0.346)	42	477987			19.57- 119.57	68.90
5.644	5.644	(0.346)	39	482267			24.97- 124.97	69.52

1 Dichlorodifluoromethane/Fr12 CAS #: 75-71-8								
5.947	5.947	(0.364)	85	2255085	5.00000	5.983	80.00- 120.00	100.00
5.947	5.947	(0.364)	87	736192			0.00- 82.65	32.65

3 Freon 114 CAS #: 76-14-2								
7.052	7.052	(0.432)	135	1311272	5.00000	6.264	80.00- 120.00	100.00
7.052	7.052	(0.432)	137	392551			0.00- 81.73	29.94

4 Chloromethane CAS #: 74-87-3								
7.356	7.356	(0.450)	50	653816	5.00000	6.017	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	210356			0.00- 84.65	32.17

6 Vinyl Chloride CAS #: 75-01-4								
8.074	8.074	(0.494)	62	679915	5.00000	5.713	80.00- 120.00	100.00
8.074	8.074	(0.494)	64	202608			0.00- 79.80	29.80

7 1,3-Butadiene CAS #: 106-99-0								
8.295	8.295	(0.508)	54	604592	5.00000	6.103	80.00- 120.00	100.00
8.295	8.295	(0.508)	39	554581			48.03- 148.03	91.73

8 Bromomethane CAS #: 74-83-9								
9.731	9.731	(0.596)	94	465275	4.45000	4.863	80.00- 120.00	100.00
9.731	9.731	(0.596)	96	426281			41.62- 141.62	91.62

9 Chloroethane CAS #: 75-00-3								
10.228	10.228	(0.626)	64	247584	4.20000	4.368	80.00- 120.00	100.00
10.228	10.228	(0.626)	66	80258			0.00- 83.15	32.42

10 Trichlorofluoromethane/Fr11 CAS #: 75-69-4								
11.056	11.056	(0.677)	101	2015061	5.00000	6.148	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	1295477			14.29- 114.29	64.29

15 Freon 113 CAS #: 76-13-1								
12.547	12.547	(0.768)	151	801900	5.00000	5.919	80.00- 120.00	100.00

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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 113 (continued)								
12.547	12.547	(0.768)	153	498996			12.23- 112.23	62.23
12.547	12.547	(0.768)	101	1083695			83.72- 183.72	135.14

14 1,1-Dichloroethene						CAS #: 75-35-4		
12.520	12.520	(0.767)	98	370450	5.00000	5.558	80.00- 120.00	100.00
12.520	12.520	(0.767)	61	1084383			236.35- 336.35	292.72
12.520	12.520	(0.767)	96	595174			123.22- 223.22	160.66

16 Acetone						CAS #: 67-64-1		
12.824	12.824	(0.785)	43	1313856	5.00000	5.362	80.00- 120.00	100.00
12.824	12.824	(0.785)	58	376195			0.00- 78.78	28.63

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	1728963	5.00000	5.681	80.00- 120.00	100.00

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	1306634	5.00000	5.642	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	264921			0.00- 69.75	20.28
13.238	13.238	(0.811)	59	46041			0.00- 53.72	3.52

20 Methylene Chloride						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	517373	5.00000	5.336	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	757249			96.36- 196.36	146.36
13.735	13.735	(0.841)	51	223708			0.00- 93.42	43.24

21 MTBE						CAS #: 1634-04-4		
14.149	14.149	(0.866)	73	1602383	5.00000	5.949	80.00- 120.00	100.00
14.149	14.149	(0.866)	57	379066			0.00- 73.89	23.66
14.149	14.149	(0.866)	41	377544			0.00- 73.24	23.56

22 trans-1,2-Dichloroethene						CAS #: 156-60-5		
14.177	14.177	(0.868)	98	406962	5.00000	5.657	80.00- 120.00	100.00
14.177	14.177	(0.868)	61	997560			191.91- 291.91	245.12
14.177	14.177	(0.868)	96	657217			105.43- 205.43	161.49

24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	1040190	5.00000	5.661	80.00- 120.00	100.00
14.563	14.563	(0.892)	43	658912			15.23- 115.23	63.35
14.563	14.563	(0.892)	86	147907			0.00- 65.23	14.22

25 1,1-Dichloroethane						CAS #: 75-34-3		
15.005	15.005	(0.919)	63	1124851	5.00000	5.665	80.00- 120.00	100.00
15.005	15.005	(0.919)	65	333248			0.00- 79.63	29.63

26 Vinyl Acetate						CAS #: 108-05-4		
15.060	15.060	(0.922)	43	401000	5.00000	7.395	80.00- 120.00	100.00

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AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
26 Vinyl Acetate (continued)									
15.060	15.060	(0.922)	42	35591			0.00- 59.40	8.88	
15.060	15.060	(0.922)	86	38737			0.00- 58.65	9.66	

27 cis-1,2-Dichloroethene						CAS #: 156-59-2			
15.944	15.944	(0.976)	98	368223	5.00000	5.476	80.00- 120.00	100.00	
15.944	15.944	(0.976)	61	1066073			239.52- 339.52	289.52	
15.944	15.944	(0.976)	96	575091			106.18- 206.18	156.18	

28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	335553	6.00000	6.609	80.00- 120.00	100.00	
15.972	15.972	(0.978)	43	3621365			1029.22-1129.22	1079.22	
15.972	15.972	(0.978)	57	130941			0.00- 89.21	39.02	

23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	737564	5.00000	5.235	80.00- 120.00	100.00	
16.331	16.331	(1.000)	71	251775			0.00- 84.14	34.14	
16.331	16.331	(1.000)	72	264847			0.00- 86.54	35.91	

30 Chloroform						CAS #: 67-66-3			
16.414	16.414	(1.005)	83	1288737	5.00000	5.794	80.00- 120.00	100.00	
16.414	16.414	(1.005)	85	851758			16.09- 116.09	66.09	

31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	568595	5.00000	5.597	80.00- 120.00	100.00	
16.662	16.662	(1.020)	56	828527			93.37- 193.37	145.71	
16.662	16.662	(1.020)	41	470492			30.80- 130.80	82.75	

32 1,1,1-Trichloroethane						CAS #: 71-55-6			
16.662	16.662	(1.020)	97	1142389	5.00000	6.268	80.00- 120.00	100.00	
16.662	16.662	(1.020)	99	728405			13.76- 113.76	63.76	

33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	1029898	5.00000	6.168	80.00- 120.00	100.00	
16.883	16.883	(1.034)	117	1148269			61.49- 161.49	111.49	

35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	1615661	5.00000	5.125	80.00- 120.00	100.00	
17.214	17.214	(0.967)	77	353176			0.00- 72.07	21.86	

36 1,2-Dichloroethane						CAS #: 107-06-2			
17.325	17.325	(0.974)	62	963567	5.00000	6.285	80.00- 120.00	100.00	
17.325	17.325	(0.974)	64	295389			0.00- 81.56	30.66	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	1055423	5.00000	5.734	80.00- 120.00	100.00	

0866

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
37 Heptane (continued)								
17.435	17.435	(0.980)	57	541106			1.42- 101.42	51.27
17.435	17.435	(0.980)	100	176957			0.00- 66.93	16.77

39 Trichloroethene						CAS #: 79-01-6		
18.153	18.153	(1.020)	130	666258	5.00000	6.017	80.00- 120.00	100.00
18.153	18.153	(1.020)	95	717285			66.40- 166.40	107.66
18.153	18.153	(1.020)	97	474518			23.45- 123.45	71.22

40 1,2-Dichloropropane						CAS #: 78-87-5		
18.540	18.540	(1.042)	63	505549	5.00000	5.569	80.00- 120.00	100.00
18.540	18.540	(1.042)	62	351706			19.57- 119.57	69.57
18.540	18.540	(1.042)	41	402531			29.62- 129.62	79.62

41 1,4-Dioxane						CAS #: 123-91-1		
18.650	18.650	(1.048)	88	361729	5.00000	5.610	80.00- 120.00	100.00
18.650	18.650	(1.048)	58	278541			27.00- 127.00	77.00
18.650	18.650	(1.048)	57	97047			0.00- 75.47	26.83

42 Bromodichloromethane						CAS #: 75-27-4		
18.899	18.899	(1.062)	83	1245972	5.00000	6.067	80.00- 120.00	100.00
18.899	18.899	(1.062)	85	825490			16.25- 116.25	66.25

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
19.562	19.562	(1.099)	75	814254	5.00000	5.909	80.00- 120.00	100.00
19.562	19.562	(1.099)	77	251615			0.00- 80.90	30.90
19.534	19.534	(1.098)	39	526067			14.61- 114.61	64.61

44 4-Methyl-2-pentanone						CAS #: 108-10-1		
19.727	19.727	(1.109)	43	1169273	5.00000	5.742	80.00- 120.00	100.00
19.727	19.727	(1.109)	58	450495			0.00- 87.49	38.53
19.727	19.727	(1.109)	85	191138			0.00- 66.91	16.35

46 Toluene						CAS #: 108-88-3		
20.004	20.004	(1.124)	91	1967184	5.00000	5.446	80.00- 120.00	100.00
20.004	20.004	(1.124)	92	1223884			12.22- 112.22	62.22

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
20.363	20.363	(0.920)	75	805988	5.00000	6.283	80.00- 120.00	100.00
20.363	20.363	(0.920)	77	243764			0.00- 80.24	30.24
20.363	20.363	(0.920)	39	432274			3.63- 103.63	53.63

48 1,1,2-Trichloroethane						CAS #: 79-00-5		
20.666	20.666	(0.934)	97	592554	5.00000	5.893	80.00- 120.00	100.00
20.666	20.666	(0.934)	99	384027			14.81- 114.81	64.81
20.666	20.666	(0.934)	83	482341			31.40- 131.40	81.40

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AMOUNTS								
				CAL-AMT		ON-COL		
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
49 Tetrachloroethene						CAS #: 127-18-4		
20.804	20.804	(0.940)	166	794378	5.00000	6.082	80.00- 120.00	100.00
20.804	20.804	(0.940)	129	599269			25.44- 125.44	75.44
20.804	20.804	(0.940)	131	579293			22.92- 122.92	72.92
50 2-Hexanone						CAS #: 591-78-6		
20.942	20.942	(0.946)	58	596670	5.00000	6.021	80.00- 120.00	100.00
20.942	20.942	(0.946)	43	1118371			137.44- 237.44	187.44
20.942	20.942	(0.946)	100	110144			0.00- 68.76	18.46
51 Dibromochloromethane						CAS #: 124-48-1		
21.246	21.246	(0.960)	129	896781	5.00000	6.339	80.00- 120.00	100.00
21.246	21.246	(0.960)	208	47761			0.00- 54.14	5.33
53 1,2-Dibromoethane						CAS #: 106-93-4		
21.467	21.467	(0.970)	107	849745	5.00000	6.137	80.00- 120.00	100.00
21.467	21.467	(0.970)	109	793131			43.34- 143.34	93.34
55 Chlorobenzene						CAS #: 108-90-7		
22.158	22.158	(1.001)	112	1279439	5.00000	5.901	80.00- 120.00	100.00
22.158	22.158	(1.001)	114	396430			0.00- 80.98	30.98
22.158	22.158	(1.001)	77	878302			18.65- 118.65	68.65
56 Ethyl Benzene						CAS #: 100-41-4		
22.268	22.268	(1.006)	106	735900	5.00000	5.909	80.00- 120.00	100.00
22.268	22.268	(1.006)	91	2420994			294.68- 394.68	328.98
57 m,p-Xylene						CAS #: 108-38-3		
22.434	22.434	(1.014)	106	870776	5.00000	5.717	80.00- 120.00	100.00
22.434	22.434	(1.014)	91	1907876			168.06- 268.06	219.10
58 o-Xylene						CAS #: 95-47-6		
23.069	23.069	(1.042)	106	715309	5.00000	5.767	80.00- 120.00	100.00
23.069	23.069	(1.042)	91	1713997			189.62- 289.62	239.62
59 Styrene						CAS #: 100-42-5		
23.096	23.096	(1.044)	104	1312664	5.70000	6.836	80.00- 120.00	100.00
23.096	23.096	(1.044)	78	750092			7.14- 107.14	57.14
60 Bromoform						CAS #: 75-25-2		
23.455	23.455	(1.060)	173	670858	5.00000	6.562	80.00- 120.00	100.00
23.455	23.455	(1.060)	171	353261			2.66- 102.66	52.66
64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
24.146	24.146	(1.091)	83	837497	5.00000	5.671	80.00- 120.00	100.00
24.146	24.146	(1.091)	85	548362			15.48- 115.48	65.48

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AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
66 4-Ethyltoluene						CAS #: 622-96-8			
24.450	24.450	(1.105)	105	1931753	5.00000	5.845	80.00- 120.00	100.00	
24.450	24.450	(1.105)	120	488509			0.00- 75.29	25.29	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	1663914	5.00000	5.675	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	660838			0.00- 89.72	39.72	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	1629215	5.00000	5.808	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	604692			0.00- 87.12	37.12	

70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.775	25.775	(1.165)	146	1085488	5.00000	5.398	80.00- 120.00	100.00	
25.775	25.775	(1.165)	148	703661			13.36- 113.36	64.82	
25.775	25.775	(1.165)	111	472353			0.00- 93.12	43.52	

71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.941	25.941	(1.172)	146	1111132	5.00000	5.305	80.00- 120.00	100.00	
25.941	25.941	(1.172)	148	709529			12.91- 112.91	63.86	
25.941	25.941	(1.172)	111	463295			0.00- 90.99	41.70	

72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.162	26.162	(1.182)	91	1341309	5.00000	5.673	80.00- 120.00	100.00	
26.162	26.162	(1.182)	126	220327			0.00- 66.94	16.43	

73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.604	26.604	(1.202)	146	965099	5.00000	5.394	80.00- 120.00	100.00	
26.604	26.604	(1.202)	148	607737			12.97- 112.97	62.97	
26.604	26.604	(1.202)	111	427621			0.00- 94.31	44.31	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.476	29.476	(1.332)	180	1226782	6.85000	8.113	80.00- 120.00	100.00	
29.476	29.476	(1.332)	182	1176286			45.88- 145.88	95.88	

76 Hexachlorobutadiene						CAS #: 87-68-3			
29.669	29.669	(1.341)	225	764497	6.35000	7.336	80.00- 120.00	100.00	
29.669	29.669	(1.341)	223	470969			13.94- 113.94	61.61	

62 Cumene						CAS #: 98-82-8			
23.621	23.621	(1.067)	105	1774996	5.00000	5.894	80.00- 120.00	100.00	
23.621	23.621	(1.067)	120	391298			0.00- 72.05	22.05	

65 Propylbenzene						CAS #: 103-65-1			
24.284	24.284	(1.097)	91	2367269	5.00000	5.713	80.00- 120.00	100.00	
24.284	24.284	(1.097)	120	453355			0.00- 69.13	19.15	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 10-FEB-2005
Lab File ID: 7021002.d	Calibration Time: 03:20
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 50mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	457404	274442	640366	464988	1.66
38 1,4-Difluorobenze	2019637	1211782	2827492	2172345	7.56
54 Chlorobenzene-d5	1418741	851245	1986237	1516792	6.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

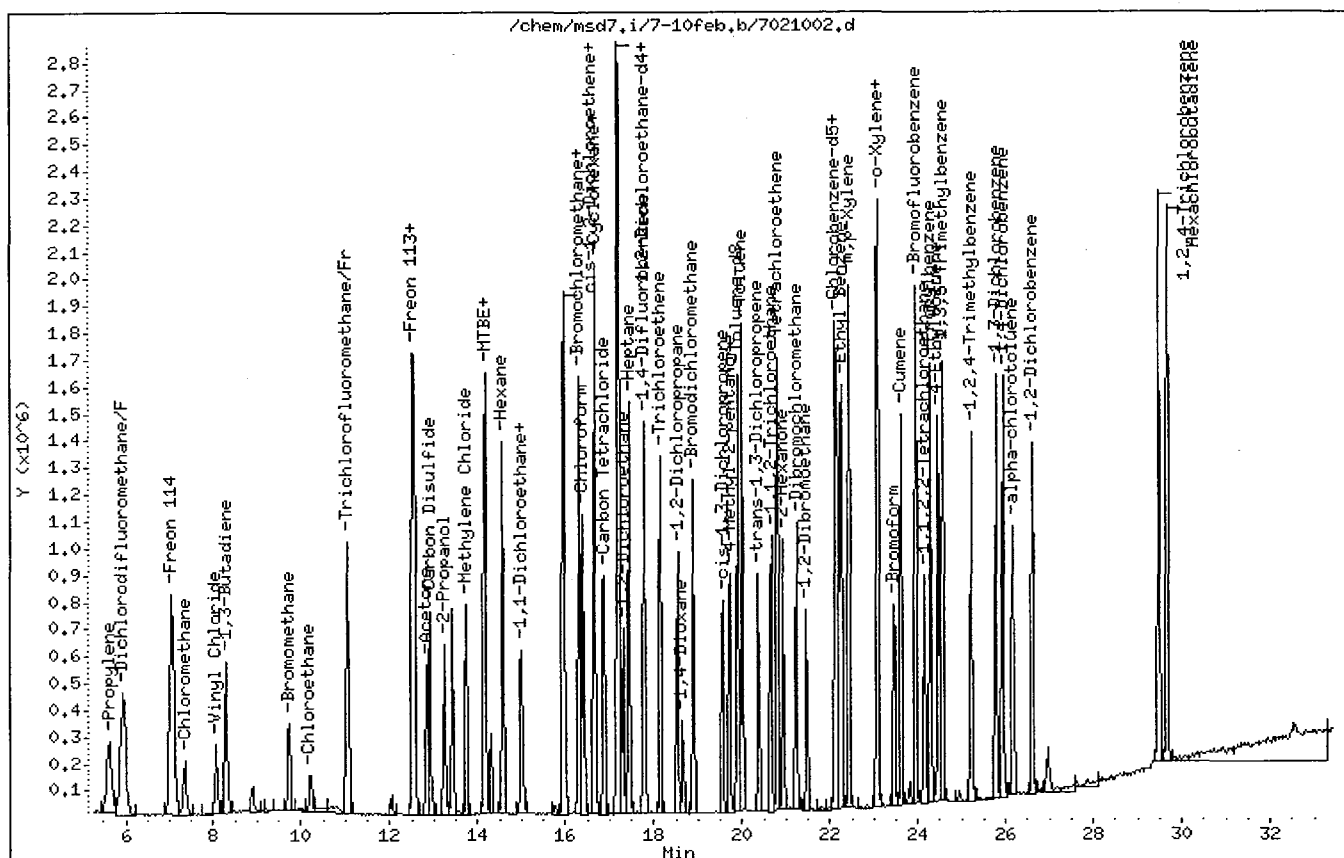
0870

SCOEPA00032542

Instrument: msd7.i

Operator: WW

Column diameter: 0.32



0871

SCOEPA00032543

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 07-FEB-2005 23:53
Lab File ID: 7020704.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV EtOH Quant Type: ISTD
Method: /chem/msd7.i/7-07feb.b/t141J27b.m

COMPOUND	RRF / AMOUNT	RF5	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
12 Ethanol	0.98929	0.98217	0.010	0.72034	30.00000		Averaged

0872

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020704.d
Lab Smp Id: CCV EtOH Client Smp ID: CCV
Inj Date : 07-FEB-2005 23:53
Operator : WW Inst ID: msd7.i
Smp Info : 1243-163 [200ppbv] can#94302
Misc Info : 12.5mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 08-Feb-2005 00:40 wwrong Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	523239	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	412438			26.96- 126.96	78.82
16.331	16.331	(1.000)	49	908889			126.50- 226.50	173.70

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2345125	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	417494			0.00- 67.80	17.80

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1687545	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	1017364			9.26- 109.26	60.29

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	256953	5.00000	4.964	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	59007			0.00- 76.71	22.96
12.050	12.050	(0.738)	46	99151			0.00- 90.17	38.59

0873

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 07-FEB-2005
Lab File ID: 7020704.d	Calibration Time: 22:06
Lab Smp Id: CCV EtOH	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 12.5mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	509696	305818	713574	523239	2.66
38 1,4-Difluorobenze	2384030	1430418	3337642	2345125	-1.63
54 Chlorobenzene-d5	1688502	1013101	2363903	1687545	-0.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0874

Date : 07-FEB-2005 23:53

Client ID: CCV

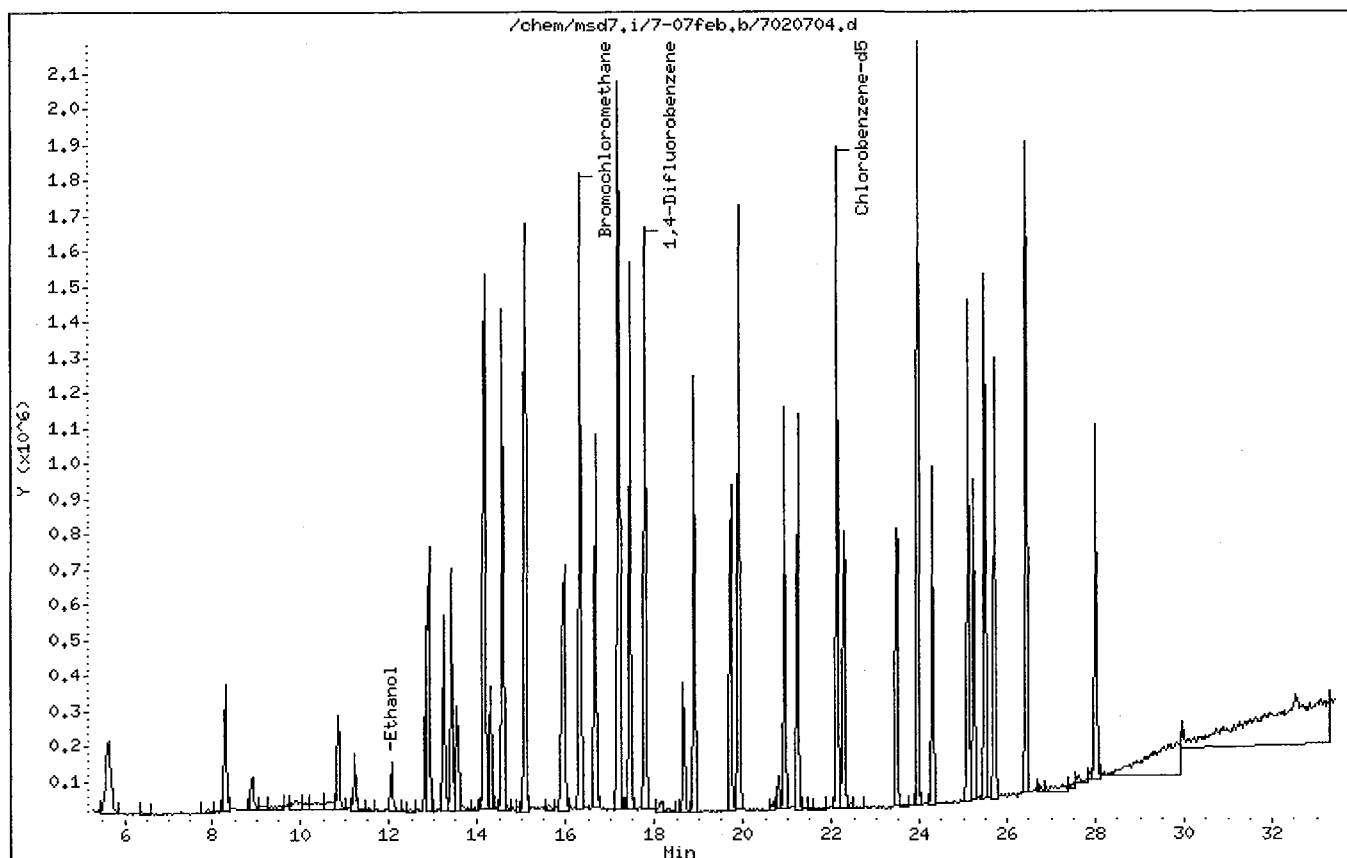
Instrument: msd7.i

Sample Info: 1243-163 [200ppbv] can#94302

Operator: WW

Column phase: RTx-624

Column diameter: 0.32



0875

SCOEP00032547

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 08-FEB-2005 01:00
Lab File ID: 7020705.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Retek Quant Type: ISTD
Method: /chem/msd7.i/7-07feb.b/t141J27b.m

COMPOUND	RRF / AMOUNT	RF40	MIN		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
\$ 34 1,2-Dichloroethane-d4	2.05961	2.15813	0.010	-4.78360	30.00000	Averaged	
\$ 45 Toluene-d8	0.85314	0.80097	0.010	6.11578	30.00000	Averaged	
\$ 63 Bromofluorobenzene	0.51659	0.50394	0.010	2.44932	30.00000	Averaged	
142 Isopentane	1.99973	1.68258	0.010	15.85948	40.00000	Averaged	
147 2-Methylpentane	1.54946	1.58668	0.010	-2.40222	40.00000	Averaged	
148 2,3-Dimethylpentane	0.19774	0.20604	0.010	-4.20052	40.00000	Averaged	
143 Isooctane	3.13699	3.08996	0.010	1.49930	40.00000	Averaged	
144 Thiophene	0.75792	0.77068	0.010	-1.68343	40.00000	Averaged	
145 Indan	1.99211	1.75068	0.010	12.11946	40.00000	Averaged	
146 Indene	1.70188	1.47889	0.010	13.10280	40.00000	Averaged	
74 Naphthalene	4.10318	3.36760	0.010	17.92700	40.00000	Averaged	

0876

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020705.d
Lab Smp Id: CCV Retek Client Smp ID: CCV
Inj Date : 08-FEB-2005 01:00
Operator : WW Inst ID: msd7.i
Smp Info : 1243-99A [100ppbv] can#4154
Misc Info : 25mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 09-Feb-2005 14:23 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecCCV.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 29 Bromochloromethane CAS #: 74-97-5								
16.331	16.331	(1.000)	130	542490	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	431797			26.96- 126.96	79.60
16.331	16.331	(1.000)	49	956349			126.50- 226.50	176.29

\$ 34 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
17.214	17.214	(1.054)	65	1170764	10.0000	10.478	80.00- 120.00	100.00
17.214	17.214	(1.054)	67	603709			0.17- 100.17	51.57

* 38 1,4-Difluorobenzene CAS #: 540-36-3								
17.794	17.794	(1.000)	114	2679294	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	449454			0.00- 66.78	16.78

\$ 45 Toluene-d8 CAS #: 2037-26-5								
19.893	19.893	(1.118)	98	2146027	10.0000	9.388	80.00- 120.00	100.00
19.893	19.893	(1.118)	70	266430			0.00- 62.42	12.42
19.893	19.893	(1.118)	100	1523621			21.00- 121.00	71.00

* 54 Chlorobenzene-d5 CAS #: 3114-55-4								
22.130	22.130	(1.000)	117	1721557	10.0000		80.00- 120.00	100.00

0877

AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 54 Chlorobenzene-d5 (continued)									
22.130	22.130	(1.000)	82	1006635			9.26- 109.26	58.47	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	867553	10.0000	9.755	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1329377			103.23- 203.23	153.23	
23.953	23.953	(1.082)	176	835717			46.33- 146.33	96.33	

142 Isopentane						CAS #: 78-78-4			
10.366	10.366	(0.635)	57	1825566	20.0000	16.828	80.00- 120.00	100.00	
10.366	10.366	(0.635)	43	2514728			98.86- 198.86	137.75	
10.366	10.366	(0.635)	42	2133401			77.01- 177.01	116.86	

147 2-Methylpentane						CAS #: 107-83-5			
13.569	13.569	(0.831)	71	1721517	20.0000	20.480	80.00- 120.00	100.00	
13.569	13.569	(0.831)	43	5759681			284.41- 384.41	334.57	
13.569	13.569	(0.831)	42	2872453			118.68- 218.68	166.86	

148 2,3-Dimethylpentane						CAS #: 565-59-3			
16.662	16.662	(0.936)	71	1104094	20.0000	20.840	80.00- 120.00	100.00	
16.662	16.662	(0.936)	56	3702860			304.42- 404.42	335.38	
16.662	16.662	(0.936)	43	2876938			226.51- 326.51	260.57	

143 Isooctane						CAS #: 540-84-1			
17.187	17.187	(1.052)	56	3352543	20.0000	19.700	80.00- 120.00	100.00	
17.187	17.187	(1.052)	99	575151			0.00- 65.73	17.16	
17.187	17.187	(1.052)	41	2888026			34.74- 134.74	86.14	

144 Thiophene						CAS #: 110-02-1			
17.546	17.546	(0.986)	84	3014707	14.6000	14.846	80.00- 120.00	100.00	
17.546	17.546	(0.986)	58	2032051			17.23- 117.23	67.40	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

145 Indan						CAS #: 496-11-7			
26.327	26.327	(1.190)	117	6027793	20.0000	17.576	80.00- 120.00	100.00	
26.327	26.327	(1.190)	118	3484642			7.94- 107.94	57.81	
26.327	26.327	(1.190)	91	1050091			0.00- 67.76	17.42	

146 Indene						CAS #: 95-13-6			
26.742	26.742	(1.208)	115	5091988	20.0000	17.379	80.00- 120.00	100.00	
26.742	26.742	(1.208)	116	5229630			52.91- 152.91	102.70	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	5565614	9.60000	7.879	80.00- 120.00	100.00	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 07-FEB-2005
Lab File ID: 7020705.d	Calibration Time: 22:06
Lab Smp Id: CCV Retek	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 25mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	509696	305818	713574	542490	6.43
38 1,4-Difluorobenze	2384030	1430418	3337642	2679294	12.39
54 Chlorobenzene-d5	1688502	1013101	2363903	1721557	1.96

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0879

SCOEPAA00032551

Data File: /chem/msd7.i/7-07feb,b/7020705.d

Page 1

Date : 08-FEB-2005 01:00

Client ID: CCV

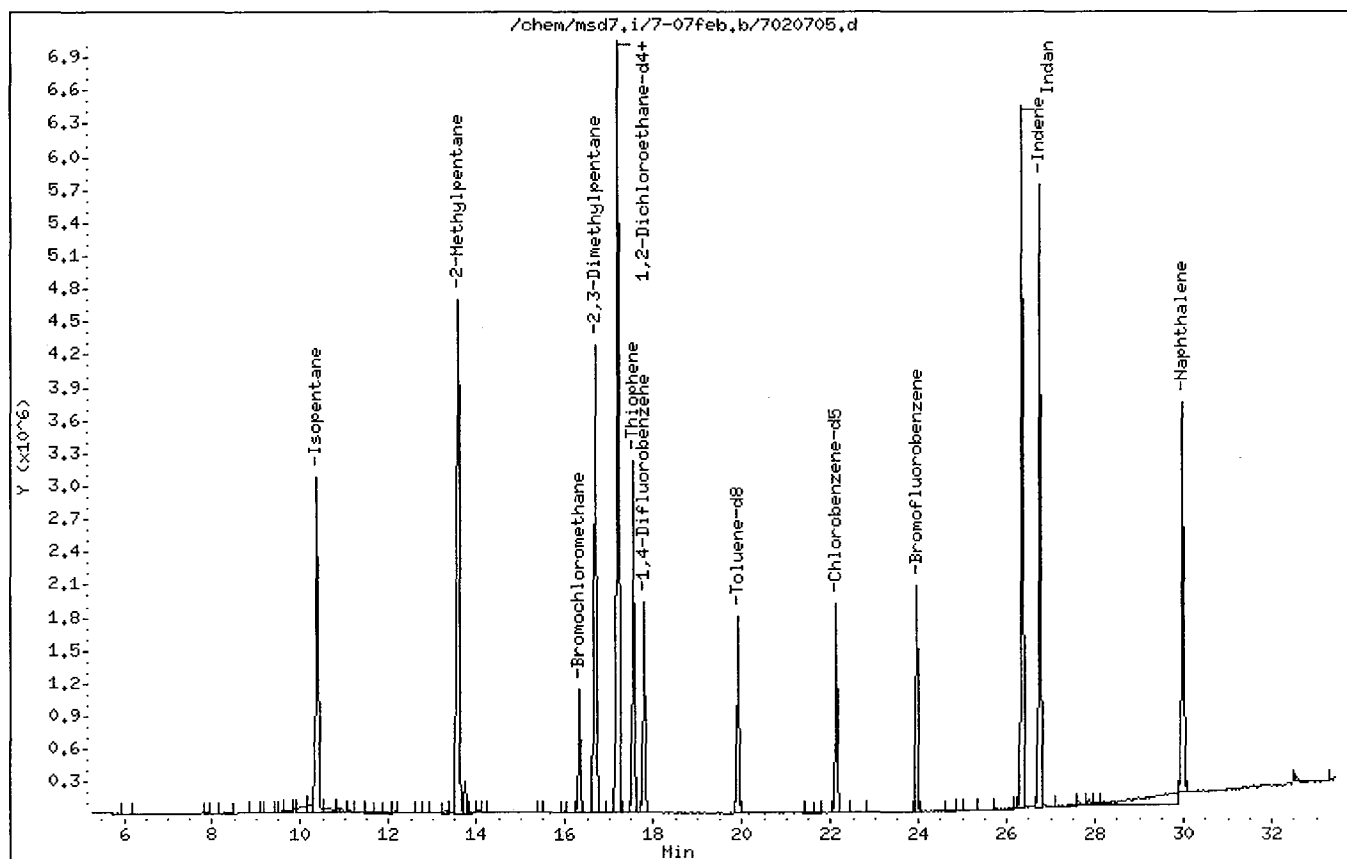
Instrument: msd7.i

Sample Info: 1243-99A [100ppbv] can#4154

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0880

SCOEPAA00032552

Data File: /chem/msd7.i/7-09feb.b/7020904.d
Report Date: 09-Feb-2005 04:16

Page 1

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 09-FEB-2005 03:19
Lab File ID: 7020904.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV EtOH Quant Type: ISTD
Method: /chem/msd7.i/7-09feb.b/t141J27b.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
12 Ethanol	0.98929	1.17153	0.010	-18.42053	30.00000	Averaged

0881

SCOEPA00032553

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020904.d
Lab Smp Id: CCV EtOH Client Smp ID: CCV EtOH
Inj Date : 09-FEB-2005 03:19
Operator : WW Inst ID: msd7.i
Smp Info : #1243-163 [200ppbv]
Misc Info : 12.5mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 09-Feb-2005 04:16 bdunmore Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	460654	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	361151			26.96- 126.96	78.40	
16.331	16.331	(1.000)	49	815958			126.50- 226.50	177.13	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2090343	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	359828			0.00- 67.21	17.21	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1464797	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	881200			9.26- 109.26	60.16	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	269834	5.00000	5.921	80.00- 120.00	100.00	
12.050	12.050	(0.738)	43	62729			0.00- 76.71	23.25	
12.050	12.050	(0.738)	46	112885			0.00- 90.17	41.83	

0882

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 09-FEB-2005
Lab File ID: 7020904.d	Calibration Time: 00:48
Lab Smp Id: CCV EtOH	Client Smp ID: CCV EtOH
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 12.5mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	460654	-2.94
38 1,4-Difluorobenze	2234295	1340577	3128013	2090343	-6.44
54 Chlorobenzene-d5	1557243	934346	2180140	1464797	-5.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0883

SCOEPAA00032555

Date : 09-FEB-2005 03:19

Client ID: CCV EtOH

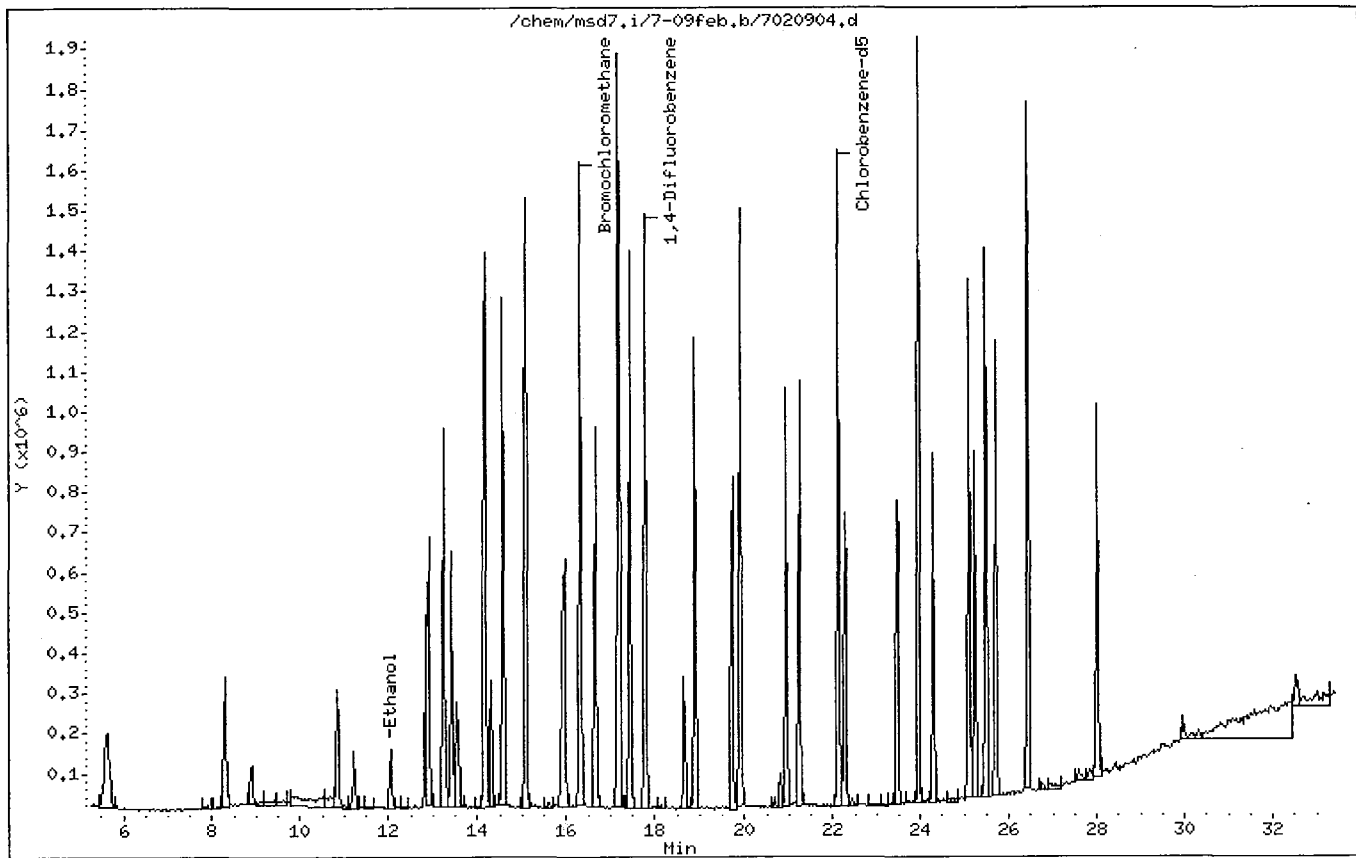
Instrument: msd7.i

Sample Info: #1243-163 [200ppbv]

Operator: MW

Column phase: RTX-624

Column diameter: 0.32



0884

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 09-FEB-2005 04:31
Lab File ID: 7020905.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Retek Quant Type: ISTD
Method: /chem/msd7.i/7-09feb.b/t141J27b.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
34 1,2-Dichloroethane-d4	2.05961	2.14008	0.010	-3.90737	30.00000	Averaged
45 Toluene-d8	0.85314	0.78920	0.010	7.49475	30.00000	Averaged
63 Bromofluorobenzene	0.51659	0.53661	0.010	-3.87551	30.00000	Averaged
142 Isopentane	1.99973	1.23520	0.010	38.23174	40.00000	Averaged
147 2-Methylpentane	1.54946	1.72928	0.010	-11.60512	40.00000	Averaged
148 2,3-Dimethylpentane	0.19774	0.23101	0.010	-16.82543	40.00000	Averaged
143 Isooctane	3.13699	3.56560	0.010	-13.66297	40.00000	Averaged
144 Thiophene	0.75792	0.88094	0.010	-16.23116	40.00000	Averaged
145 Indan	1.99211	2.05632	0.010	-3.22325	40.00000	Averaged
146 Indene	1.70188	1.81238	0.010	-6.49247	40.00000	Averaged
74 Naphthalene	4.10318	3.88076	0.010	5.42051	40.00000	Averaged

0885

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020905.d
Lab Smp Id: CCV Retek Client Smp ID: CCV Retek
Inj Date : 09-FEB-2005 04:31
Operator : WW Inst ID: msd7.i
Smp Info : #1243-99A [100ppbv]
Misc Info : 25mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 09-Feb-2005 05:07 bdunmore Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecCCV.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS											
		CAL-AMT		ON-COL							
RT	EXP RT (REL RT)	MASS	RESPONSE (PPBV)	(PPBV)	TARGET RANGE	RATIO					
==	=====	=====	=====	=====	=====	=====					
* 29 Bromochloromethane					CAS #: 74-97-5						
16.331	16.331 (1.000)	130	454069	10.0000		80.00-	120.00			100.00	
16.331	16.331 (1.000)	128	365401			26.96-	126.96			80.47	
16.303	16.303 (1.000)	49	834722			126.50-	226.50			183.83	

\$ 34 1,2-Dichloroethane-d4					CAS #: 17060-07-0						
17.214	17.214 (1.054)	65	971745	10.0000	10.391	80.00-	120.00			100.00	
17.214	17.214 (1.054)	67	463580			0.17-	100.17			47.71	

* 38 1,4-Difluorobenzene					CAS #: 540-36-3						
17.794	17.794 (1.000)	114	2118699	10.0000		80.00-	120.00			100.00	
17.767	17.767 (1.000)	88	371083			0.00-	67.51			17.51	

\$ 45 Toluene-d8					CAS #: 2037-26-5						
19.893	19.893 (1.118)	98	1672083	10.0000	9.250	80.00-	120.00			100.00	
19.893	19.893 (1.118)	70	200347			0.00-	61.98			11.98	
19.893	19.893 (1.118)	100	1208055			22.25-	122.25			72.25	

* 54 Chlorobenzene-d5					CAS #: 3114-55-4						
22.130	22.130 (1.000)	117	1488058	10.0000		80.00-	120.00			100.00	

0886

AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 54 Chlorobenzene-d5 (continued)									
22.130	22.130	(1.000)	82	879696			9.26- 109.26	59.12	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.952	(1.082)	174	798504	10.0000	10.388	80.00- 120.00	100.00	
23.952	23.952	(1.082)	95	1237757			105.01- 205.01	155.01	
23.952	23.952	(1.082)	176	787045			48.56- 148.56	98.56	

142 Isopentane						CAS #: 78-78-4			
10.366	10.366	(0.635)	57	280432	5.00000	3.088	80.00- 120.00	100.00	
10.366	10.366	(0.635)	43	389247			98.86- 198.86	138.80	
10.366	10.366	(0.635)	42	351900			77.01- 177.01	125.48	

147 2-Methylpentane						CAS #: 107-83-5			
13.569	13.569	(0.831)	71	392605	5.00000	5.580	80.00- 120.00	100.00	
13.569	13.569	(0.831)	43	1308887			284.41- 384.41	333.38	
13.569	13.569	(0.831)	42	677446			118.68- 218.68	172.55	

148 2,3-Dimethylpentane						CAS #: 565-59-3			
16.662	16.662	(0.936)	71	244716	5.00000	5.841	80.00- 120.00	100.00	
16.662	16.662	(0.936)	56	869458			304.42- 404.42	355.29	
16.662	16.662	(0.936)	43	676889			226.51- 326.51	276.60	

143 Isooctane						CAS #: 540-84-1			
17.187	17.187	(1.052)	56	809514	5.00000	5.683	80.00- 120.00	100.00	
17.187	17.187	(1.052)	99	129260			0.00- 65.73	15.97	
17.187	17.187	(1.052)	41	711961			34.74- 134.74	87.95	

144 Thiophene						CAS #: 110-02-1			
17.546	17.546	(0.986)	84	681250	3.65000	4.242	80.00- 120.00	100.00	
17.546	17.546	(0.986)	58	470787			17.23- 117.23	69.11	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

145 Indan						CAS #: 496-11-7			
26.327	26.327	(1.190)	117	1529966	5.00000	5.161	80.00- 120.00	100.00	
26.327	26.327	(1.190)	118	864707			7.94- 107.94	56.52	
26.327	26.327	(1.190)	91	269391			0.00- 67.76	17.61	

146 Indene						CAS #: 95-13-6			
26.742	26.742	(1.208)	115	1348463	5.00000	5.325	80.00- 120.00	100.00	
26.742	26.742	(1.208)	116	1371210			52.91- 152.91	101.69	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	1385952	2.40000	2.270	80.00- 120.00	100.00	

0887

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 09-FEB-2005
Lab File ID: 7020905.d	Calibration Time: 00:48
Lab Smp Id: CCV Retek	Client Smp ID: CCV Retek
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 25mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	474591	284755	664427	454069	-4.32
38 1,4-Difluorobenze	2234295	1340577	3128013	2118699	-5.17
54 Chlorobenzene-d5	1557243	934346	2180140	1488058	-4.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0888

SCOEPAA00032560

Date : 09-FEB-2005 04:31

Client ID: CCV Retek

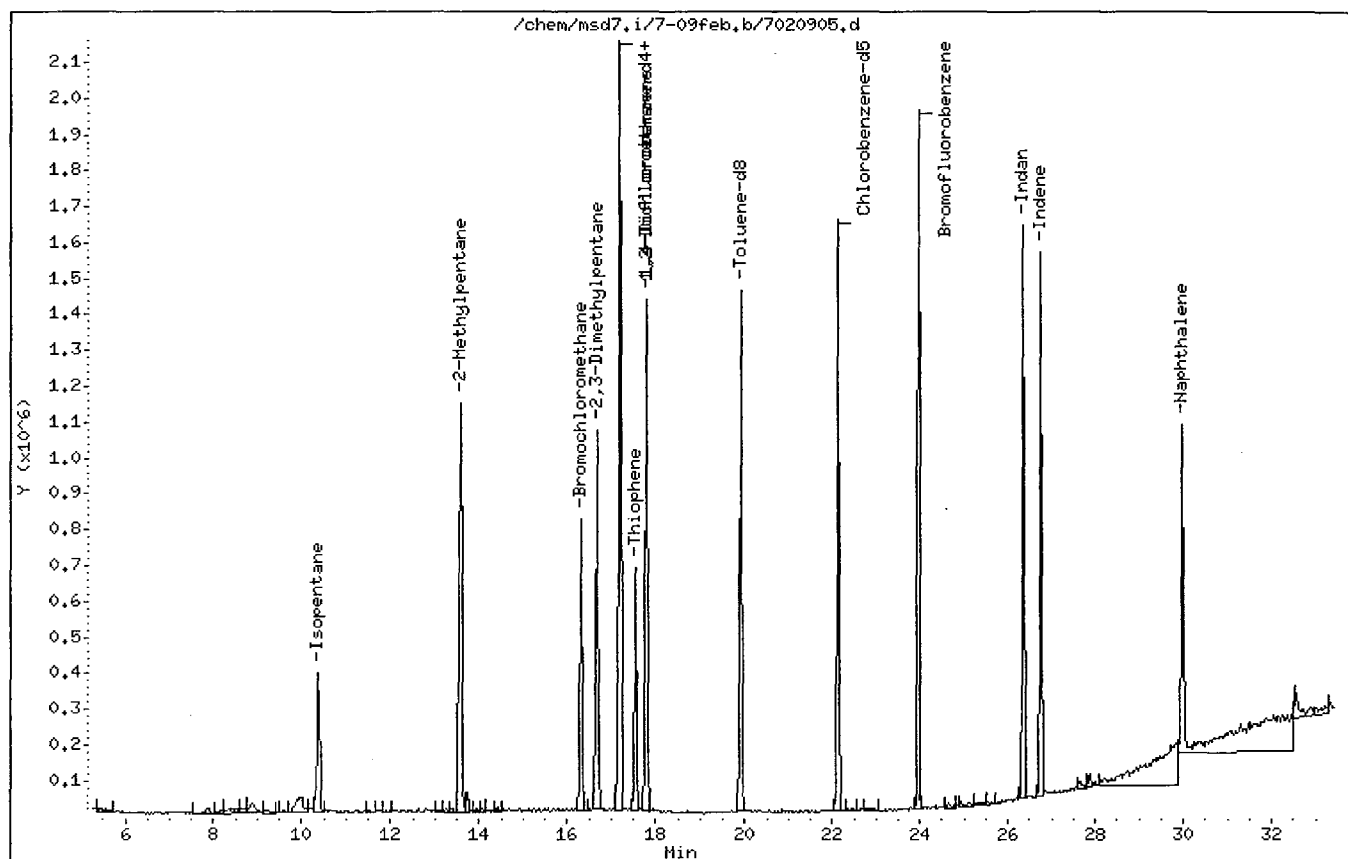
Instrument: msd7.i

Sample Info: #1243-99A [100ppbv]

Operator: WW

Column phase: RTX-624

Column diameter: 0.32



0889

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 10-FEB-2005 02:21
Lab File ID: 7021003.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV EtOH Quant Type: ISTD
Method: /chem/msd7.i/7-10feb.b/t141J27b.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
12 Ethanol	0.98929	1.00224	0.010	-1.30828	30.00000	Averaged

0890

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021003.d
Lab Smp Id: CCV EtOH Client Smp ID: CCV EtOH
Inj Date : 10-FEB-2005 02:21
Operator : WW Inst ID: msd7.i
Smp Info : #1243-163 [200ppbv]
Misc Info : 12.5mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 03:04 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Ethanol.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
---	-----	-----	----	-----	-----	-----	-----	-----
* 29 Bromochloromethane						CAS #: 74-97-5		
16.331	16.331	(1.000)	130	450475	10.0000		80.00- 120.00	100.00
16.331	16.331	(1.000)	128	357643			26.96- 126.96	79.39
16.331	16.331	(1.000)	49	811321			126.50- 226.50	180.10

* 38 1,4-Difluorobenzene						CAS #: 540-36-3		
17.794	17.794	(1.000)	114	2084167	10.0000		80.00- 120.00	100.00
17.794	17.794	(1.000)	88	362092			0.00- 67.37	17.37

* 54 Chlorobenzene-d5						CAS #: 3114-55-4		
22.130	22.130	(1.000)	117	1505129	10.0000		80.00- 120.00	100.00
22.130	22.130	(1.000)	82	872794			9.26- 109.26	57.99

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	225741	5.00000	5.065	80.00- 120.00	100.00
12.050	12.050	(0.738)	43	57116			0.00- 76.71	25.30
12.050	12.050	(0.738)	46	99165			0.00- 90.17	43.93

0891

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 10-FEB-2005
Lab File ID: 7021003.d	Calibration Time: 00:57
Lab Smp Id: CCV EtOH	Client Smp ID: CCV EtOH
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 12.5mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	450475	-3.12
38 1,4-Difluorobenze	2172345	1303407	3041283	2084167	-4.06
54 Chlorobenzene-d5	1516792	910075	2123509	1505129	-0.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd7.i/7-10feb.b/7021003.d

Page 1

Date : 10-FEB-2005 02:21

Client ID: CCV EtOH

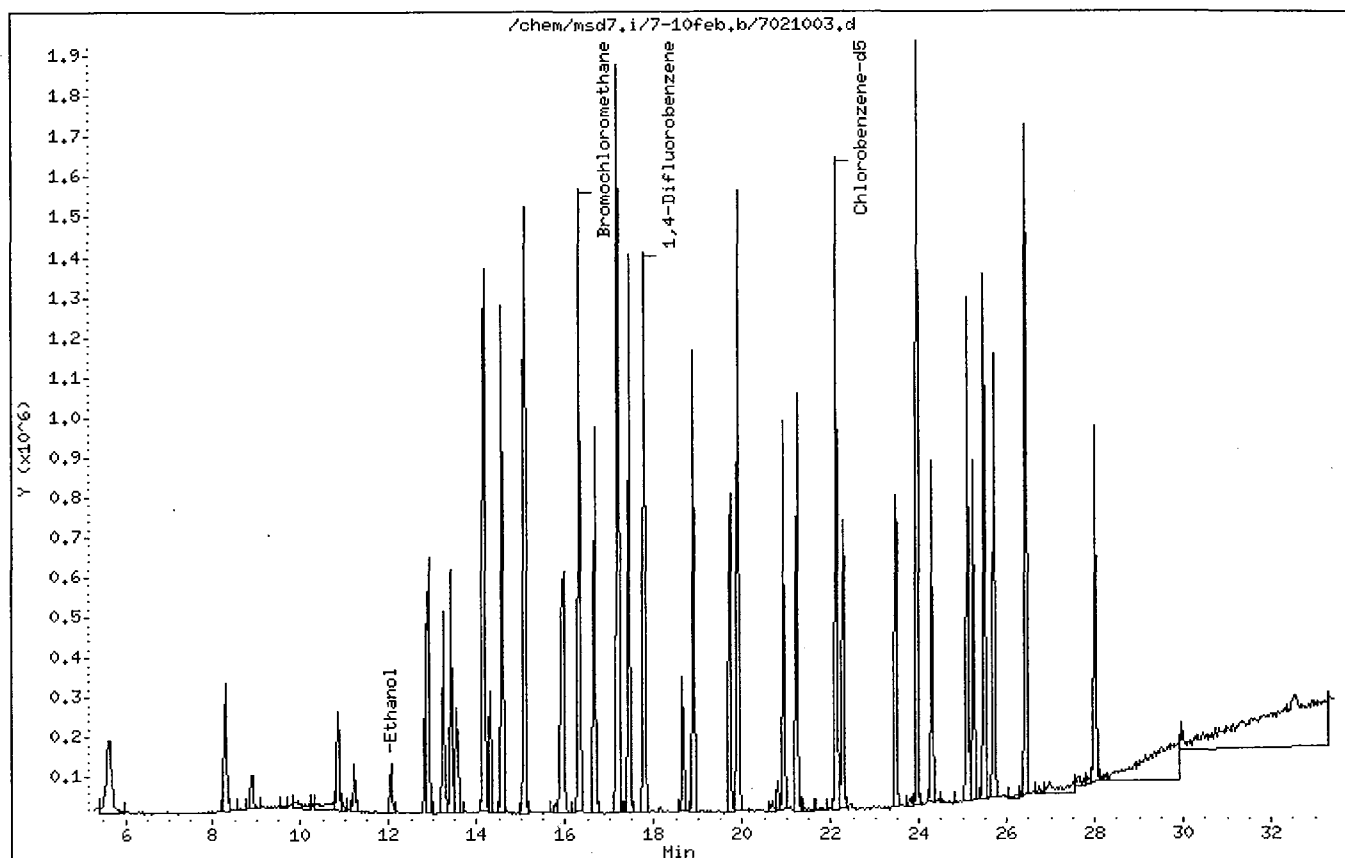
Instrument: msd7.i

Sample Info: #1243-163 [200ppbv]

Operator: WW

Column phase: RTX-624

Column diameter: 0.32



0893

SCOEP00032565

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd7.i Injection Date: 10-FEB-2005 03:20
Lab File ID: 7021004.d Init. Cal. Date(s): 28-JAN-2005 04-FEB-2005
Analysis Type: AIR Init. Cal. Times: 11:14 11:49
Lab Sample ID: CCV Retek Quant Type: ISTD
Method: /chem/msd7.i/7-10feb.b/t141J27b.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
1\$ 34 1,2-Dichloroethane-d4	2.05961	2.14485	0.010	-4.13903	30.00000	Averaged
1\$ 45 Toluene-d8	0.85314	0.79105	0.010	7.27833	30.00000	Averaged
1\$ 63 Bromofluorobenzene	0.51659	0.53212	0.010	-3.00727	30.00000	Averaged
1 142 Isopentane	1.99973	2.68117	0.010	-34.07662	40.00000	Averaged
1 147 2-Methylpentane	1.54946	1.69318	0.010	-9.27563	40.00000	Averaged
1 148 2,3-Dimethylpentane	0.19774	0.23723	0.010	-19.97346	40.00000	Averaged
1 143 Isooctane	3.13699	3.50488	0.010	-11.72757	40.00000	Averaged
1 144 Thiophene	0.75792	0.90771	0.010	-19.76334	40.00000	Averaged
1 145 Indan	1.99211	2.08045	0.010	-4.43422	40.00000	Averaged
1 146 Indene	1.70188	1.85222	0.010	-8.83351	40.00000	Averaged
1 74 Naphthalene	4.10318	3.88953	0.010	5.20674	40.00000	Averaged

0894

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021004.d
Lab Smp Id: CCV Retek Client Smp ID: CCV Retek
Inj Date : 10-FEB-2005 03:20
Operator : WW Inst ID: msd7.i
Smp Info : #1243-99A [100ppbv]
Misc Info : 25mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 04:19 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RetecCCV.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
				CAL-AMT		ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	457404	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	338677			26.96- 126.96	74.04	
16.331	16.331	(1.000)	49	799343			126.50- 226.50	174.76	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	981065	10.0000	10.414	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	460988			0.17- 100.17	46.99	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2019637	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	354039			0.00- 67.53	17.53	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1597632	10.0000	9.272	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	185846			0.00- 61.63	11.63	
19.893	19.893	(1.118)	100	1122738			20.28- 120.28	70.28	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1418741	10.0000		80.00- 120.00	100.00	

0895

AMOUNTS									
			CAL-AMT			ON-COL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 54 Chlorobenzene-d5 (continued)									
22.130	22.130	(1.000)	82	859235			9.26- 109.26	60.56	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.952	23.952	(1.082)	174	754945	10.0000	10.301	80.00- 120.00	100.00	
23.952	23.952	(1.082)	95	1181116			106.45- 206.45	156.45	
23.952	23.952	(1.082)	176	736101			47.50- 147.50	97.50	

142 Isopentane						CAS #: 78-78-4			
10.393	10.393	(0.636)	57	613188	5.00000	6.704	80.00- 120.00	100.00	
10.393	10.393	(0.636)	43	858321			98.86- 198.86	139.98	
10.393	10.393	(0.636)	42	751069			77.01- 177.01	122.49	

147 2-Methylpentane						CAS #: 107-83-5			
13.569	13.569	(0.831)	71	387234	5.00000	5.464	80.00- 120.00	100.00	
13.569	13.569	(0.831)	43	1301539			284.41- 384.41	336.11	
13.569	13.569	(0.831)	42	667327			118.68- 218.68	172.33	

148 2,3-Dimethylpentane						CAS #: 565-59-3			
16.662	16.662	(0.936)	71	239560	5.00000	5.999	80.00- 120.00	100.00	
16.662	16.662	(0.936)	56	850947			304.42- 404.42	355.21	
16.662	16.662	(0.936)	43	651853			226.51- 326.51	272.10	

143 Isooctane						CAS #: 540-84-1			
17.187	17.187	(1.052)	56	801574	5.00000	5.586	80.00- 120.00	100.00	
17.187	17.187	(1.052)	99	135157			0.00- 65.73	16.86	
17.187	17.187	(1.052)	41	692282			34.74- 134.74	86.37	

144 Thiophene						CAS #: 110-02-1			
17.546	17.546	(0.986)	84	669132	3.65000	4.371	80.00- 120.00	100.00	
17.546	17.546	(0.986)	58	459209			17.23- 117.23	68.63	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

145 Indan						CAS #: 496-11-7			
26.327	26.327	(1.190)	117	1475809	5.00000	5.222	80.00- 120.00	100.00	
26.327	26.327	(1.190)	118	857137			7.94- 107.94	58.08	
26.327	26.327	(1.190)	91	286645			0.00- 67.76	19.42	

146 Indene						CAS #: 95-13-6			
26.742	26.742	(1.208)	115	1313911	5.00000	5.442	80.00- 120.00	100.00	
26.742	26.742	(1.208)	116	1335654			52.91- 152.91	101.65	
0.000	1.000	(0.000)	0	0			0.00- 50.00	0.00	

74 Naphthalene						CAS #: 91-20-3			
29.973	29.973	(1.354)	128	1324378	2.40000	2.275	80.00- 120.00	100.00	

0896

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 10-FEB-2005
Lab File ID: 7021004.d	Calibration Time: 00:57
Lab Smp Id: CCV Retek	Client Smp ID: CCV Retek
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 25mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	457404	-1.63
38 1,4-Difluorobenze	2172345	1303407	3041283	2019637	-7.03
54 Chlorobenzene-d5	1516792	910075	2123509	1418741	-6.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0897

SCOEPAA00032569

Data File: /chem/msd7.i/7-10feb.b/7021004.d

Page 1

Date : 10-FEB-2005 03:20

Client ID: CCV Retek

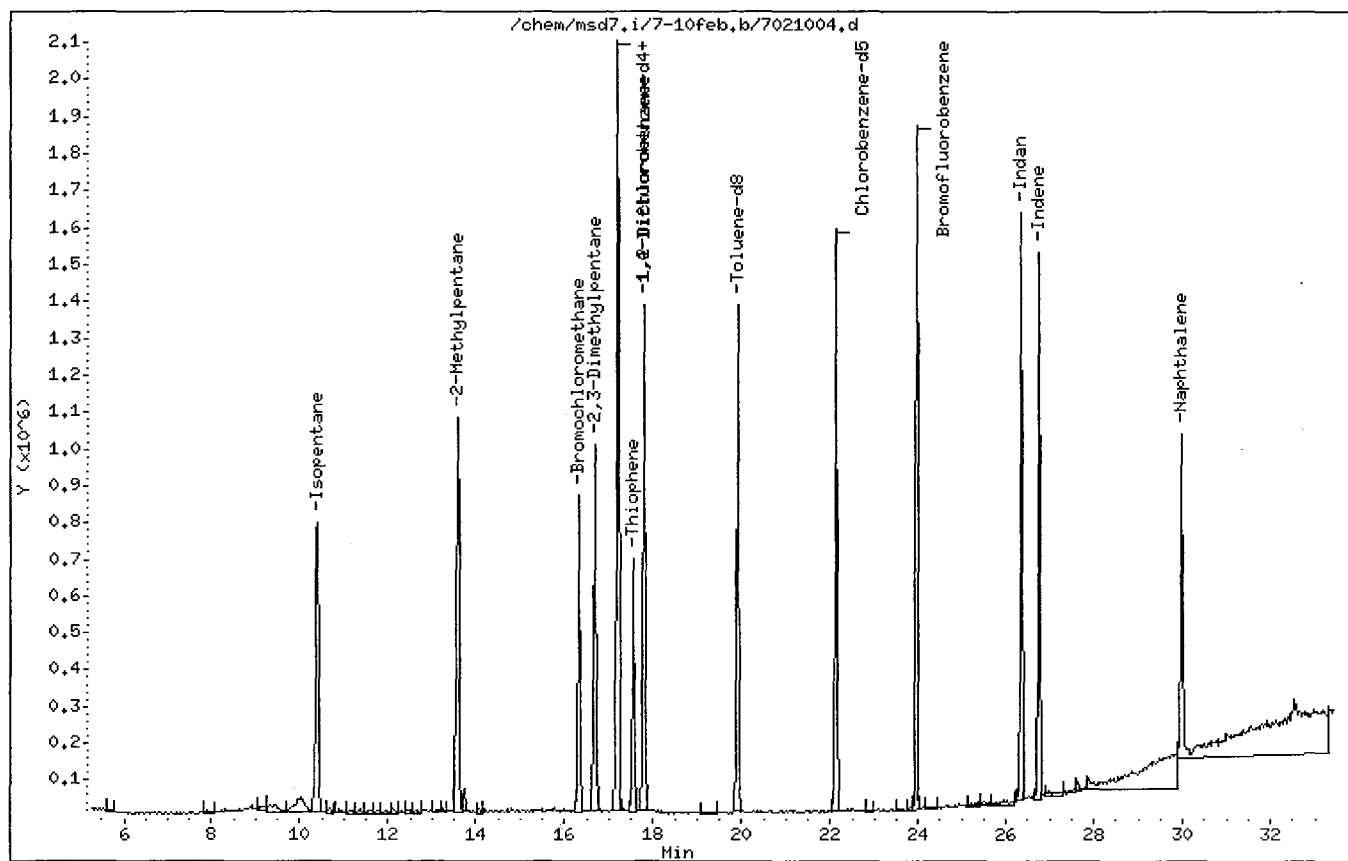
Instrument: msd7.i

Sample Info: #1243-99A [100ppbv]

Operator: WW

Column phase: RTX-624

Column diameter: 0.32



0898

SCOEPAA00032570

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502032-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020706	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/05 02:05 AM

Compound	%Recovery
Freon 12	100
Freon 114	103
Chloromethane	100
Vinyl Chloride	99
Bromomethane	90
Chloroethane	94
Freon 11	105
1,1-Dichloroethene	104
Freon 113	104
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	104
Chloroform	106
1,1,1-Trichloroethane	119
Carbon Tetrachloride	67 Q
Benzene	98
1,2-Dichloroethane	115
Trichloroethene	115
1,2-Dichloropropane	109
cis-1,3-Dichloropropene	112
Toluene	97
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	111
Tetrachloroethene	109
1,2-Dibromoethane (EDB)	115
Chlorobenzene	109
Ethyl Benzene	106
m,p-Xylene	104
o-Xylene	115
Styrene	90
1,1,2,2-Tetrachloroethane	115
1,3,5-Trimethylbenzene	117
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	117
1,4-Dichlorobenzene	118
alpha-Chlorotoluene	145 Q
1,2-Dichlorobenzene	116
Methylene Chloride	95
1,2,4-Trichlorobenzene	146 Q
Hexachlorobutadiene	128
1,3-Butadiene	85
Acetone	89
Carbon Disulfide	90

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ID#: 0502032-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020706	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/05 02:05 AM

Compound	%Recovery
2-Propanol	83
trans-1,2-Dichloroethene	89
2-Butanone (Methyl Ethyl Ketone)	88
Hexane	96
Tetrahydrofuran	93
Cyclohexane	96
1,4-Dioxane	106
Bromodichloromethane	98
4-Methyl-2-pentanone	93
2-Hexanone	95
Dibromochloromethane	104
Bromoform	96
4-Ethyltoluene	123
Ethanol	93
Methyl tert-butyl ether	100
Heptane	94
Cumene	129
Propylbenzene	86
Naphthalene	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-07feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: WW
Data Type: MS DATA	SampleType: LCS
SpikeList File: AT.spk	Quant Type: ISTD
Sublist File: AT.sub	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 100mL [5.0ppbv]	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.804	116.09	60-140
1 Dichlorodifluorome	5.000	5.002	100.05	70-130
3 Freon 114	5.000	5.153	103.05	70-130
4 Chloromethane	5.000	5.013	100.25	70-130
6 Vinyl Chloride	5.000	4.943	98.86	70-130
7 1,3-Butadiene	5.000	4.255	85.11	60-140
8 Bromomethane	5.000	4.498	89.95	70-130
9 Chloroethane	5.000	4.685	93.71	70-130
10 Trichlorofluoromet	5.000	5.271	105.43	70-130
12 Ethanol	5.000	4.673	93.46	60-140
15 Freon 113	5.000	5.198	103.96	70-130
14 1,1-Dichloroethene	5.000	5.225	104.51	70-130
16 Acetone	5.000	4.464	89.29	60-140
17 Carbon Disulfide	5.000	4.475	89.50	60-140
18 2-Propanol	5.000	4.166	83.32	60-140
20 Methylene Chloride	5.000	4.764	95.27	70-130
21 MTBE	5.000	4.975	99.51	60-140
22 trans-1,2-Dichloro	5.000	4.467	89.35	60-140
24 Hexane	5.000	4.787	95.74	60-140
25 1,1-Dichloroethane	5.000	5.183	103.65	70-130
26 Vinyl Acetate	5.000	8.613	172.27*	60-140
27 cis-1,2-Dichloroet	5.000	5.188	103.75	70-130
28 2-Butanone	5.000	4.406	88.11	60-140
23 Tetrahydrofuran	5.000	4.660	93.19	60-140
30 Chloroform	5.000	5.328	106.56	70-130
31 Cyclohexane	5.000	4.806	96.13	60-140
32 1,1,1-Trichloroeth	5.000	5.935	118.70	70-130
33 Carbon Tetrachlori	5.000	3.358	67.15*	70-130
35 Benzene	5.000	4.916	98.33	70-130
36 1,2-Dichloroethane	5.000	5.749	114.98	70-130
37 Heptane	5.000	4.723	94.45	60-140
39 Trichloroethene	5.000	5.748	114.96	70-130
40 1,2-Dichloropropan	5.000	5.455	109.10	70-130
0901				

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
41 1,4-Dioxane	5.000	5.296	105.93	60-140
42 Bromodichlorometha	5.000	4.918	98.35	60-140
43 cis-1,3-Dichloropr	5.000	5.609	112.19	70-130
44 4-Methyl-2-pentano	5.000	4.655	93.09	60-140
46 Toluene	5.000	4.852	97.04	70-130
47 trans-1,3-Dichloro	5.000	5.526	110.53	70-130
48 1,1,2-Trichloroeth	5.000	5.570	111.39	70-130
49 Tetrachloroethene	5.000	5.462	109.24	70-130
50 2-Hexanone	5.000	4.740	94.81	60-140
51 Dibromochlorometha	5.000	5.222	104.43	60-140
53 1,2-Dibromoethane	5.000	5.765	115.31	70-130
55 Chlorobenzene	5.000	5.440	108.80	70-130
56 Ethyl Benzene	5.000	5.326	106.52	70-130
57 m,p-Xylene	10.000	10.397	103.97	70-130
58 o-Xylene	5.000	5.762	115.24	70-130
59 Styrene	5.000	4.478	89.56	70-130
60 Bromoform	5.000	4.818	96.35	60-140
64 1,1,2,2-Tetrachlor	5.000	5.758	115.16	70-130
66 4-Ethyltoluene	5.000	6.140	122.79	60-140
67 1,3,5-Trimethylben	5.000	5.840	116.80	70-130
69 1,2,4-Trimethylben	5.000	5.605	112.10	70-130
70 1,3-Dichlorobenzen	5.000	5.856	117.13	70-130
71 1,4-Dichlorobenzen	5.000	5.881	117.62	70-130
72 alpha-Chlorotoluen	5.000	7.267	145.34*	70-130
73 1,2-Dichlorobenzen	5.000	5.779	115.59	70-130
75 1,2,4-Trichloroben	5.000	7.314	146.29*	70-130
76 Hexachlorobutadien	5.000	6.412	128.24	70-130
62 Cumene	5.000	6.449	128.98	60-140
65 Propylbenzene	5.000	4.290	85.81	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.032	100.32	0-130
\$ 45 Toluene-d8	10.000	9.661	96.61	0-130
\$ 63 Bromofluorobenzene	10.000	9.948	99.48	0-130

0902

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-07feb.b/7020706.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 08-FEB-2005 02:05
Operator : WW Inst ID: msd7.i
Smp Info : 1243-148 [25ppbv] can#34332
Misc Info : 100mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-07feb.b/t141J27b.m
Meth Date : 08-Feb-2005 01:47 wwrong Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS											
		ON-COL		FINAL							
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO				
==	=====	=====	=====	=====	=====	=====	=====				
* 29 Bromochloromethane CAS #: 74-97-5											
16.331	16.331 (1.000)	130	516882	10.0000		80.00- 120.00	100.00				
16.331	16.331 (1.000)	128	397530			26.96- 126.96	76.91				
16.331	16.331 (1.000)	49	927301			126.50- 226.50	179.40				

* 38 1,4-Difluorobenzene CAS #: 540-36-3											
17.794	17.794 (1.000)	114	2409430	10.0000		80.00- 120.00	100.00				
17.794	17.794 (1.000)	88	403279			0.00- 67.15	16.74				

* 54 Chlorobenzene-d5 CAS #: 3114-55-4											
22.130	22.130 (1.000)	117	1668804	10.0000		80.00- 120.00	100.00				
22.130	22.130 (1.000)	82	980591			9.26- 109.26	58.76				

\$ 34 1,2-Dichloroethane-d4 CAS #: 17060-07-0											
17.215	17.214 (1.054)	65	1067935	10.0316	10.032	80.00- 120.00	100.00				
17.215	17.214 (1.054)	67	524059			0.17- 100.17	49.07				

\$ 45 Toluene-d8 CAS #: 2037-26-5											
19.893	19.893 (1.118)	98	1985858	9.66077	9.661	80.00- 120.00	100.00				
19.893	19.893 (1.118)	70	242267			0.00- 62.20	12.20				

0903

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1445924			19.63-	119.63	72.81

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	857586	9.94782	9.948	80.00-	120.00	100.00
23.953	23.953	(1.082)	95	1311618			104.35-	204.35	152.94
23.953	23.953	(1.082)	176	816192			46.23-	146.23	95.17

2 Propylene						CAS #: 115-07-1			
5.644	5.644	(0.346)	41	667507	5.80432	5.804	80.00-	120.00	100.00
5.644	5.616	(0.346)	42	427793			19.57-	119.57	64.09
5.644	5.644	(0.346)	39	462869			24.97-	124.97	69.34

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	2095893	5.00249	5.002	80.00-	120.00	100.00
5.947	5.947	(0.364)	87	677238			0.00-	82.62	32.31

3 Freon 114						CAS #: 76-14-2			
7.052	7.052	(0.432)	135	1198955	5.15271	5.153	80.00-	120.00	100.00
7.052	7.052	(0.432)	137	382427			0.00-	81.73	31.90

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	605469	5.01264	5.013	80.00-	120.00	100.00
7.356	7.356	(0.450)	52	191730			0.00-	84.65	31.67

6 Vinyl Chloride						CAS #: 75-01-4			
8.074	8.046	(0.494)	62	653856	4.94285	4.943	80.00-	120.00	100.00
8.074	8.046	(0.494)	64	200860			0.00-	80.76	30.72

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	468590	4.25537	4.255	80.00-	120.00	100.00
8.295	8.295	(0.508)	39	445419			48.03-	148.03	95.06

8 Bromomethane						CAS #: 74-83-9			
9.731	9.703	(0.596)	94	478369	4.49773	4.498	80.00-	120.00	100.00
9.731	9.731	(0.596)	96	436484			44.45-	144.45	91.24

9 Chloroethane						CAS #: 75-00-3			
10.228	10.200	(0.626)	64	295174	4.68526	4.685	80.00-	120.00	100.00
10.228	10.200	(0.626)	66	96001			0.00-	83.15	32.52

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	1920449	5.27139	5.271	80.00-	120.00	100.00
11.056	11.056	(0.677)	103	1228024			13.43-	113.43	63.94

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	238941	4.67277	4.673	80.00-	120.00	100.00

0904

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
12 Ethanol (continued)									
12.050	12.050	(0.738)	43	54917			0.00-	76.71	22.98
12.050	12.050	(0.738)	46	95759			0.00-	90.17	40.08

15 Freon 113						CAS #: 76-13-1			
12.548	12.547	(0.768)	151	782757	5.19806	5.198	80.00-	120.00	100.00
12.548	12.547	(0.768)	153	496497			13.12-	113.12	63.43
12.548	12.547	(0.768)	101	1041082			83.72-	183.72	133.00

14 1,1-Dichloroethene						CAS #: 75-35-4			
12.520	12.520	(0.767)	98	387167	5.22529	5.225	80.00-	120.00	100.00
12.520	12.520	(0.767)	61	1089866			236.35-	336.35	281.50
12.520	12.520	(0.767)	96	625982			123.22-	223.22	161.68

16 Acetone						CAS #: 67-64-1			
12.851	12.824	(0.787)	43	1215978	4.46454	4.464	80.00-	120.00	100.00
12.851	12.824	(0.787)	58	337211			0.00-	78.78	27.73

17 Carbon Disulfide						CAS #: 75-15-0			
12.907	12.906	(0.790)	76	1513853	4.47513	4.475	80.00-	120.00	100.00

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	1072503	4.16607	4.166	80.00-	120.00	100.00
13.238	13.238	(0.811)	43	211849			0.00-	69.75	19.75
13.238	13.238	(0.811)	59	40767			0.00-	53.72	3.80

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	513449	4.76365	4.764	80.00-	120.00	100.00
13.735	13.735	(0.841)	49	771936			102.91-	202.91	150.34
13.735	13.735	(0.841)	51	228323			0.00-	93.42	44.47

21 MTBE						CAS #: 1634-04-4			
14.149	14.149	(0.866)	73	1489657	4.97535	4.975	80.00-	120.00	100.00
14.149	14.149	(0.866)	57	353681			0.00-	73.89	23.74
14.149	14.149	(0.866)	41	350516			0.00-	73.24	23.53

22 trans-1,2-Dichloroethene						CAS #: 156-60-5			
14.177	14.177	(0.868)	98	357218	4.46734	4.467	80.00-	120.00	100.00
14.177	14.177	(0.868)	61	874554			191.91-	291.91	244.82
14.177	14.177	(0.868)	96	573668			105.43-	205.43	160.59

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	977718	4.78714	4.787	80.00-	120.00	100.00
14.563	14.563	(0.892)	43	626956			15.23-	115.23	64.12
14.563	14.563	(0.892)	86	145595			0.00-	65.23	14.89

0905

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
25 1,1-Dichloroethane						CAS #: 75-34-3		
15.005	15.005	(0.919)	63	1143909	5.18266	5.183	80.00- 120.00	100.00
15.005	15.005	(0.919)	65	330349			0.00- 78.95	28.88

26 Vinyl Acetate						CAS #: 108-05-4		
15.061	15.060	(0.922)	43	519224	8.61344	8.613	80.00- 120.00	100.00(R)
15.061	15.060	(0.922)	42	46106			0.00- 59.40	8.88
15.061	15.060	(0.922)	86	47976			0.00- 58.65	9.24

27 cis-1,2-Dichloroethene						CAS #: 156-59-2		
15.944	15.944	(0.976)	98	387771	5.18770	5.188	80.00- 120.00	100.00
15.944	15.944	(0.976)	61	872685			233.81- 333.81	225.05
15.944	15.944	(0.976)	96	626654			104.43- 204.43	161.60

28 2-Butanone						CAS #: 78-93-3		
15.972	15.972	(0.978)	72	248654	4.40559	4.406	80.00- 120.00	100.00
15.972	15.972	(0.978)	43	1237883			1005.34-1105.34	497.83
15.972	15.972	(0.978)	57	101964			0.00- 89.21	41.01

23 Tetrahydrofuran						CAS #: 109-99-9		
16.331	16.331	(1.000)	42	729775	4.65952	4.660	80.00- 120.00	100.00
16.331	16.331	(1.000)	71	237922			0.00- 82.81	32.60
16.331	16.331	(1.000)	72	262647			0.00- 86.54	35.99

30 Chloroform						CAS #: 67-66-3		
16.414	16.414	(1.005)	83	1317361	5.32796	5.328	80.00- 120.00	100.00
16.414	16.414	(1.005)	85	849716			13.71- 113.71	64.50

31 Cyclohexane						CAS #: 110-82-7		
16.662	16.662	(1.020)	84	542790	4.80647	4.806	80.00- 120.00	100.00
16.662	16.662	(1.020)	56	782775			93.37- 193.37	144.21
16.662	16.662	(1.020)	41	442089			30.80- 130.80	81.45

32 1,1,1-Trichloroethane						CAS #: 71-55-6		
16.662	16.662	(1.020)	97	1202292	5.93477	5.935	80.00- 120.00	100.00
16.662	16.662	(1.020)	99	770586			13.50- 113.50	64.09

33 Carbon Tetrachloride						CAS #: 56-23-5		
16.883	16.883	(1.034)	119	623197	3.35756	3.358	80.00- 120.00	100.00(R)
16.883	16.883	(1.034)	117	681346			63.50- 163.50	109.33

35 Benzene						CAS #: 71-43-2		
17.215	17.214	(0.967)	78	1719118	4.91630	4.916	80.00- 120.00	100.00
17.215	17.214	(0.967)	77	383949			0.00- 72.07	22.33

36 1,2-Dichloroethane						CAS #: 107-06-2		
17.325	17.325	(0.974)	62	977526	5.74888	5.749	80.00- 120.00	100.00

0906

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
36 1,2-Dichloroethane (continued)									
17.325	17.325	(0.974)	64	292248			0.00- 81.56	29.90	

37 Heptane						CAS #:	142-82-5		
17.435	17.435	(0.980)	43	964234	4.72273	4.723	80.00- 120.00	100.00	
17.435	17.435	(0.980)	57	493154			1.42- 101.42	51.14	
17.435	17.435	(0.980)	100	163777			0.00- 66.93	16.99	

39 Trichloroethene						CAS #:	79-01-6		
18.153	18.153	(1.020)	130	705917	5.74797	5.748	80.00- 120.00	100.00	
18.153	18.153	(1.020)	95	776685			66.40- 166.40	110.02	
18.153	18.153	(1.020)	97	492843			23.45- 123.45	69.82	

40 1,2-Dichloropropane						CAS #:	78-87-5		
18.540	18.540	(1.042)	63	549245	5.45519	5.455	80.00- 120.00	100.00	
18.540	18.540	(1.042)	62	370482			15.08- 115.08	67.45	
18.540	18.540	(1.042)	41	411949			25.86- 125.86	75.00	

41 1,4-Dioxane						CAS #:	123-91-1		
18.651	18.650	(1.048)	88	378753	5.29629	5.296	80.00- 120.00	100.00	
18.651	18.650	(1.048)	58	285900			27.07- 127.07	75.48	
18.651	18.650	(1.048)	57	96296			0.00- 75.47	25.42	

42 Bromodichloromethane						CAS #:	75-27-4		
18.899	18.899	(1.062)	83	1120095	4.91758	4.918	80.00- 120.00	100.00	
18.899	18.899	(1.062)	85	719228			13.71- 113.71	64.21	

43 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.562	19.562	(1.099)	75	857364	5.60927	5.609	80.00- 120.00	100.00	
19.562	19.562	(1.099)	77	277093			0.00- 81.83	32.32	
19.562	19.534	(1.099)	39	564385			15.03- 115.03	65.83	

44 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.727	19.727	(1.109)	43	1051314	4.65461	4.655	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	410321			0.00- 87.49	39.03	
19.727	19.727	(1.109)	85	167028			0.00- 66.91	15.89	

46 Toluene						CAS #:	108-88-3		
20.004	20.004	(1.124)	91	1943672	4.85181	4.852	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	1199640			11.80- 111.80	61.72	

47 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.363	20.363	(0.920)	75	779983	5.52644	5.526	80.00- 120.00	100.00	
20.363	20.363	(0.920)	77	235060			0.00- 81.54	30.14	
20.363	20.363	(0.920)	39	442425			4.53- 104.53	56.72	

0907

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.666	20.666	(0.934)	97	616175	5.56951	5.570	80.00- 120.00	100.00	
20.666	20.666	(0.934)	99	380516			12.46- 112.46	61.75	
20.666	20.666	(0.934)	83	486051			29.22- 129.22	78.88	
49 Tetrachloroethene						CAS #: 127-18-4			
20.805	20.804	(0.940)	166	784882	5.46197	5.462	80.00- 120.00	100.00	
20.805	20.804	(0.940)	129	577038			26.12- 126.12	73.52	
20.805	20.804	(0.940)	131	574019			22.87- 122.87	73.13	
50 2-Hexanone						CAS #: 591-78-6			
20.943	20.943	(0.946)	58	516832	4.74049	4.740	80.00- 120.00	100.00	
20.943	20.943	(0.946)	43	975954			144.22- 244.22	188.83	
20.943	20.943	(0.946)	100	104416			0.00- 68.76	20.20	
51 Dibromochloromethane						CAS #: 124-48-1			
21.246	21.246	(0.960)	129	812756	5.22159	5.222	80.00- 120.00	100.00	
21.246	21.246	(0.960)	208	41381			0.00- 54.14	5.09	
53 1,2-Dibromoethane						CAS #: 106-93-4			
21.467	21.467	(0.970)	107	878317	5.76527	5.765	80.00- 120.00	100.00	
21.467	21.467	(0.970)	109	832645			43.73- 143.73	94.80	
55 Chlorobenzene						CAS #: 108-90-7			
22.185	22.158	(1.002)	112	1297701	5.43998	5.440	80.00- 120.00	100.00	
22.185	22.158	(1.002)	114	424665			0.00- 82.98	32.72	
22.158	22.158	(1.001)	77	883513			20.92- 120.92	68.08	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	729712	5.32576	5.326	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	2434367			294.68- 394.68	333.61	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	1742350	10.3973	10.397	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	3783452			168.06- 268.06	217.15	
58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	786369	5.76212	5.762	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	1756976			176.46- 276.46	223.43	
59 Styrene						CAS #: 100-42-5			
23.097	23.097	(1.044)	104	945967	4.47789	4.478	80.00- 120.00	100.00	
23.097	23.097	(1.044)	78	569441			6.85- 106.85	60.20	
60 Bromoform						CAS #: 75-25-2			
23.483	23.456	(1.061)	173	541867	4.81769	4.818	80.00- 120.00	100.00	

0908

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
=====							
60 Bromoform (continued)							
23.483	23.456 (1.061)	171	281257			0.05- 100.05	51.91

64 1,1,2,2-Tetrachloroethane				CAS #: 79-34-5			
24.146	24.146 (1.091)	83	935555	5.75809	5.758	80.00- 120.00	100.00
24.146	24.146 (1.091)	85	614069			15.26- 115.26	65.64

66 4-Ethyltoluene				CAS #: 622-96-8			
24.450	24.450 (1.105)	105	2232437	6.13950	6.140	80.00- 120.00	100.00
24.450	24.450 (1.105)	120	553910			0.00- 74.43	24.81

67 1,3,5-Trimethylbenzene				CAS #: 108-67-8			
24.560	24.560 (1.110)	105	1884000	5.83998	5.840	80.00- 120.00	100.00
24.560	24.560 (1.110)	120	732148			0.00- 89.22	38.86

69 1,2,4-Trimethylbenzene				CAS #: 95-63-6			
25.195	25.195 (1.139)	105	1729792	5.60496	5.605	80.00- 120.00	100.00
25.195	25.195 (1.139)	120	648468			0.00- 87.29	37.49

70 1,3-Dichlorobenzene				CAS #: 541-73-1			
25.775	25.775 (1.165)	146	1295707	5.85646	5.856	80.00- 120.00	100.00
25.775	25.775 (1.165)	148	824437			13.36- 113.36	63.63
25.775	25.775 (1.165)	111	538921			0.00- 93.12	41.59

71 1,4-Dichlorobenzene				CAS #: 106-46-7			
25.941	25.941 (1.172)	146	1355180	5.88102	5.881	80.00- 120.00	100.00
25.941	25.941 (1.172)	148	822606			12.91- 112.91	60.70
25.941	25.941 (1.172)	111	533957			0.00- 90.99	39.40

72 alpha-Chlorotoluene				CAS #: 100-44-7			
26.162	26.162 (1.182)	91	1890227	7.26681	7.267	80.00- 120.00	100.00(R)
26.162	26.162 (1.182)	126	326291			0.00- 66.94	17.26

73 1,2-Dichlorobenzene				CAS #: 95-50-1			
26.604	26.604 (1.202)	146	1137618	5.77946	5.779	80.00- 120.00	100.00
26.604	26.604 (1.202)	148	712826			13.15- 113.15	62.66
26.604	26.604 (1.202)	111	495572			0.00- 93.17	43.56

75 1,2,4-Trichlorobenzene				CAS #: 120-82-1			
29.476	29.476 (1.332)	180	1216836	7.31432	7.314	80.00- 120.00	100.00(R)
29.476	29.476 (1.332)	182	1142725			42.93- 142.93	93.91

76 Hexachlorobutadiene				CAS #: 87-68-3			
29.669	29.669 (1.341)	225	735163	6.41199	6.412	80.00- 120.00	100.00
29.669	29.669 (1.341)	223	452578			13.94- 113.94	61.56

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====		=====
62 Cumene						CAS #:	98-82-8		
23.621	23.621	(1.067)	105	2136636	6.44914	6.449	80.00-	120.00	100.00
23.621	23.621	(1.067)	120	457977			0.00-	71.76	21.43

65 Propylbenzene						CAS #:	103-65-1		
24.284	24.284	(1.097)	91	1956060	4.29056	4.290	80.00-	120.00	100.00
24.284	24.284	(1.097)	120	374669			0.00-	69.13	19.15

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

0910

SCOEP00032582

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 07-FEB-2005
Lab File ID: 7020706.d	Calibration Time: 22:06
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-07feb.b/t141J27b.m	
Misc Info: 100mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	509696	305818	713574	516882	1.41
38 1,4-Difluorobenze	2384030	1430418	3337642	2409430	1.07
54 Chlorobenzene-d5	1688502	1013101	2363903	1668804	-1.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
 AREA LOWER LIMIT = - 40% of internal standard area.
 RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

0911

SCOEPAA00032583

Date : 08-FEB-2005 02:05

Client ID: LCS

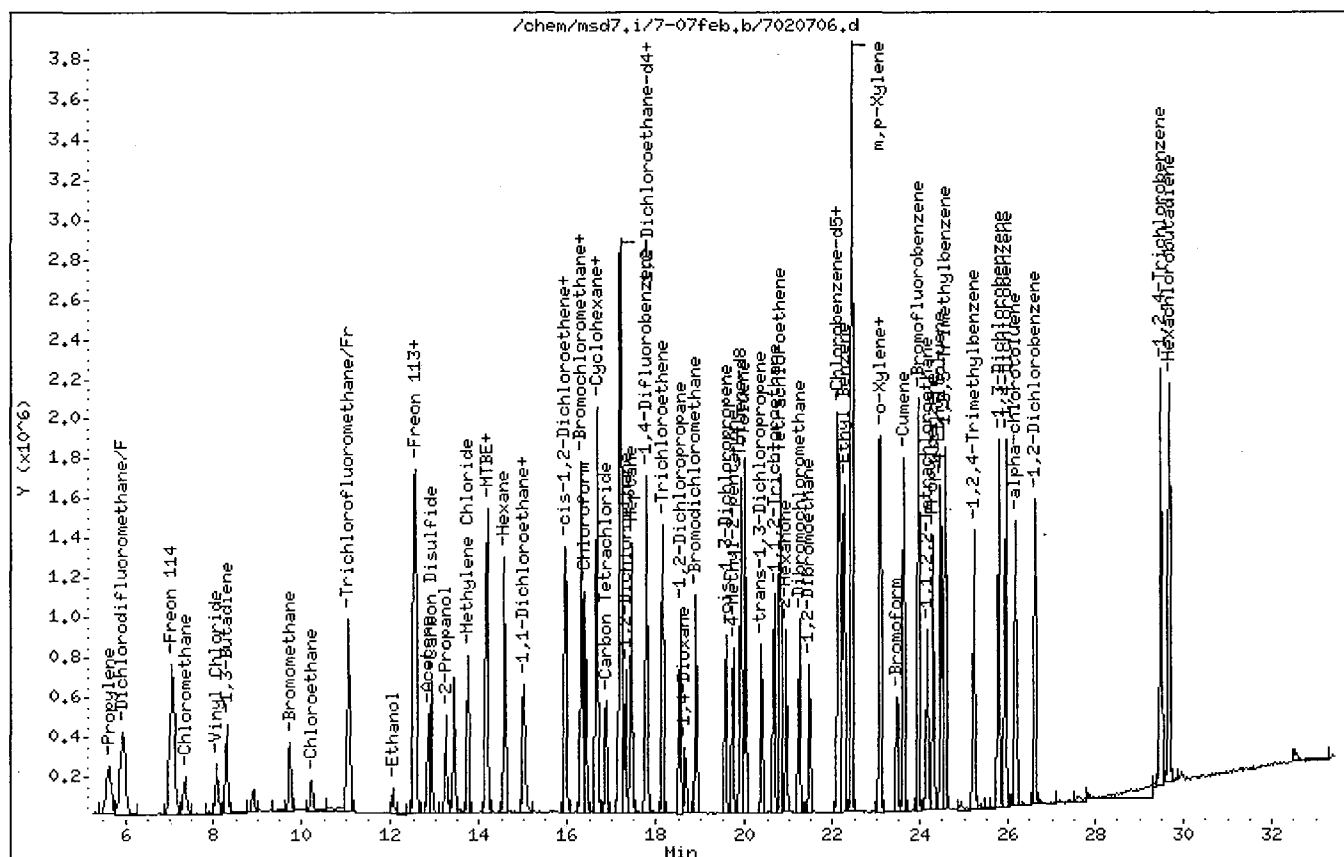
Instrument: msd7.i

Sample Info: 1243-148 [25ppbv] can#34332

Operator: WW

Column phase: RTx-624

Column diameter: 0.32



0912

SCOEPA00032584

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502032-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020906	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 05:46 AM

Compound	%Recovery
Freon 12	106
Freon 114	108
Chloromethane	102
Vinyl Chloride	105
Bromomethane	94
Chloroethane	98
Freon 11	111
1,1-Dichloroethene	107
Freon 113	107
1,1-Dichloroethane	109
cis-1,2-Dichloroethene	106
Chloroform	112
1,1,1-Trichloroethane	125
Carbon Tetrachloride	67 Q
Benzene	102
1,2-Dichloroethane	124
Trichloroethene	119
1,2-Dichloropropane	112
cis-1,3-Dichloropropene	117
Toluene	100
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	110
Tetrachloroethene	110
1,2-Dibromoethane (EDB)	116
Chlorobenzene	112
Ethyl Benzene	110
m,p-Xylene	107
o-Xylene	116
Styrene	90
1,1,2,2-Tetrachloroethane	116
1,3,5-Trimethylbenzene	122
1,2,4-Trimethylbenzene	118
1,3-Dichlorobenzene	119
1,4-Dichlorobenzene	117
alpha-Chlorotoluene	144 Q
1,2-Dichlorobenzene	118
Methylene Chloride	98
1,2,4-Trichlorobenzene	151 Q
Hexachlorobutadiene	137 Q
1,3-Butadiene	89
Acetone	93
Carbon Disulfide	93

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502032-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7020906	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/9/05 05:46 AM

Compound	%Recovery
2-Propanol	82
trans-1,2-Dichloroethene	93
2-Butanone (Methyl Ethyl Ketone)	94
Hexane	98
Tetrahydrofuran	95
Cyclohexane	101
1,4-Dioxane	109
Bromodichloromethane	104
4-Methyl-2-pentanone	98
2-Hexanone	96
Dibromochloromethane	106
Bromoform	99
4-Ethyltoluene	125
Ethanol	96
Methyl tert-butyl ether	104
Heptane	98
Cumene	134
Propylbenzene	87
Naphthalene	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-09feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: WW
Data Type: MS DATA	SampleType: LCS
SpikeList File: AT.spk	Quant Type: ISTD
Sublist File: AT.sub	
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m	
Misc Info: 100mL [5.0ppbv]	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.902	118.03	60-140
1 Dichlorodifluorome	5.000	5.314	106.27	70-130
3 Freon 114	5.000	5.404	108.08	70-130
4 Chloromethane	5.000	5.085	101.70	70-130
6 Vinyl Chloride	5.000	5.266	105.33	70-130
7 1,3-Butadiene	5.000	4.432	88.64	60-140
8 Bromomethane	5.000	4.716	94.31	70-130
9 Chloroethane	5.000	4.893	97.85	70-130
10 Trichlorofluoromet	5.000	5.554	111.07	70-130
12 Ethanol	5.000	4.780	95.59	60-140
15 Freon 113	5.000	5.352	107.04	70-130
14 1,1-Dichloroethene	5.000	5.338	106.77	70-130
16 Acetone	5.000	4.648	92.97	60-140
17 Carbon Disulfide	5.000	4.636	92.73	60-140
18 2-Propanol	5.000	4.128	82.57	60-140
20 Methylene Chloride	5.000	4.920	98.41	70-130
21 MTBE	5.000	5.203	104.06	60-140
22 trans-1,2-Dichloro	5.000	4.634	92.69	60-140
24 Hexane	5.000	4.879	97.59	60-140
25 1,1-Dichloroethane	5.000	5.446	108.93	70-130
26 Vinyl Acetate	5.000	5.010	100.20	60-140
27 cis-1,2-Dichloroet	5.000	5.278	105.56	70-130
28 2-Butanone	5.000	4.688	93.76	60-140
23 Tetrahydrofuran	5.000	4.742	94.84	60-140
30 Chloroform	5.000	5.576	111.52	70-130
31 Cyclohexane	5.000	5.031	100.63	60-140
32 1,1,1-Trichloroeth	5.000	6.272	125.45	70-130
33 Carbon Tetrachlori	5.000	3.364	67.28*	70-130
35 Benzene	5.000	5.076	101.53	70-130
36 1,2-Dichloroethane	5.000	6.183	123.67	70-130
37 Heptane	5.000	4.902	98.05	60-140
39 Trichloroethene	5.000	5.940	118.79	70-130
40 1,2-Dichloropropan	5.000	5.613	112.26	70-130
0915				

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
41 1,4-Dioxane	5.000	5.460	109.20	60-140
42 Bromodichlorometha	5.000	5.196	103.92	60-140
43 cis-1,3-Dichloropr	5.000	5.853	117.06	70-130
44 4-Methyl-2-pentano	5.000	4.909	98.18	60-140
46 Toluene	5.000	5.007	100.15	70-130
47 trans-1,3-Dichloro	5.000	5.610	112.21	70-130
48 1,1,2-Trichloroeth	5.000	5.524	110.47	70-130
49 Tetrachloroethene	5.000	5.519	110.38	70-130
50 2-Hexanone	5.000	4.776	95.52	60-140
51 Dibromochlorometha	5.000	5.286	105.72	60-140
53 1,2-Dibromoethane	5.000	5.811	116.23	70-130
55 Chlorobenzene	5.000	5.623	112.46	70-130
56 Ethyl Benzene	5.000	5.495	109.89	70-130
57 m,p-Xylene	10.000	10.690	106.90	70-130
58 o-Xylene	5.000	5.815	116.29	70-130
59 Styrene	5.000	4.529	90.58	70-130
60 Bromoform	5.000	4.943	98.86	60-140
64 1,1,2,2-Tetrachlor	5.000	5.823	116.46	70-130
66 4-Ethyltoluene	5.000	6.256	125.12	60-140
67 1,3,5-Trimethylben	5.000	6.077	121.54	70-130
69 1,2,4-Trimethylben	5.000	5.891	117.82	70-130
70 1,3-Dichlorobenzen	5.000	5.963	119.27	70-130
71 1,4-Dichlorobenzen	5.000	5.852	117.04	70-130
72 alpha-Chlorotoluen	5.000	7.212	144.24*	70-130
73 1,2-Dichlorobenzen	5.000	5.923	118.47	70-130
75 1,2,4-Trichloroben	5.000	7.532	150.64*	70-130
76 Hexachlorobutadien	5.000	6.860	137.21*	70-130
62 Cumene	5.000	6.702	134.04	60-140
65 Propylbenzene	5.000	4.365	87.30	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.332	103.32	70-130
\$ 45 Toluene-d8	10.000	10.083	100.83	70-130
\$ 63 Bromofluorobenzene	10.000	9.660	96.60	70-130

0916

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-09feb.b/7020906.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 09-FEB-2005 05:46
Operator : WW Inst ID: msd7.i
Smp Info : #1243-148 [25ppbv]
Misc Info : 100mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-09feb.b/t141J27b.m
Meth Date : 09-Feb-2005 05:07 bdunmore Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS											
		ON-COL		FINAL							
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE			RATIO	
---	-----	-----	----	-----	-----	-----	-----			-----	
* 29 Bromochloromethane						CAS #: 74-97-5					
16.331	16.331	(1.000)	130	469592	10.0000		80.00- 120.00			100.00	
16.331	16.331	(1.000)	128	364564			26.96- 126.96			77.63	
16.331	16.303	(1.000)	49	853999			126.50- 226.50			181.86	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3					
17.794	17.794	(1.000)	114	2153127	10.0000		80.00- 120.00			100.00	
17.794	17.767	(1.000)	88	384230			0.00- 67.51			17.85	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4					
22.130	22.130	(1.000)	117	1524006	10.0000		80.00- 120.00			100.00	
22.130	22.130	(1.000)	82	905396			9.26- 109.26			59.41	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0					
17.214	17.214	(1.054)	65	999262	10.3318	10.332	80.00- 120.00			100.00	
17.214	17.214	(1.054)	67	478548			0.17- 100.17			47.89	

\$ 45 Toluene-d8						CAS #: 2037-26-5					
19.893	19.893	(1.118)	98	1852179	10.0830	10.083	80.00- 120.00			100.00	
19.893	19.893	(1.118)	70	227744			0.00- 61.98			12.30	

0917

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 45 Toluene-d8 (continued)								
19.893	19.893	(1.118)	100	1314421			22.25- 122.25	70.97

\$ 63 Bromofluorobenzene						CAS #: 460-00-4		
23.952	23.952	(1.082)	174	760506	9.65988	9.660	80.00- 120.00	100.00
23.952	23.952	(1.082)	95	1191502			105.01- 205.01	156.67
23.952	23.952	(1.082)	176	743719			48.56- 148.56	97.79

2 Propylene						CAS #: 115-07-1		
5.616	5.616	(0.344)	41	616595	5.90156	5.902	80.00- 120.00	100.00
5.616	5.616	(0.344)	42	427483			19.57- 119.57	69.33
5.643	5.644	(0.346)	39	466520			24.97- 124.97	75.66

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8		
5.947	5.947	(0.364)	85	2022524	5.31351	5.314	80.00- 120.00	100.00
5.947	5.920	(0.364)	87	648326			0.00- 81.67	32.06

3 Freon 114						CAS #: 76-14-2		
7.052	7.052	(0.432)	135	1142397	5.40406	5.404	80.00- 120.00	100.00
7.052	7.052	(0.432)	137	343985			0.00- 81.73	30.11

4 Chloromethane						CAS #: 74-87-3		
7.356	7.356	(0.450)	50	558033	5.08518	5.085	80.00- 120.00	100.00
7.356	7.356	(0.450)	52	176265			0.00- 84.65	31.59

6 Vinyl Chloride						CAS #: 75-01-4		
8.074	8.046	(0.494)	62	632917	5.26639	5.266	80.00- 120.00	100.00
8.074	8.074	(0.494)	64	193678			0.00- 78.39	30.60

7 1,3-Butadiene						CAS #: 106-99-0		
8.295	8.295	(0.508)	54	443395	4.43206	4.432	80.00- 120.00	100.00
8.295	8.295	(0.508)	39	418957			48.03- 148.03	94.49

8 Bromomethane						CAS #: 74-83-9		
9.730	9.731	(0.596)	94	455668	4.71574	4.716	80.00- 120.00	100.00
9.730	9.731	(0.596)	96	425356			43.00- 143.00	93.35

9 Chloroethane						CAS #: 75-00-3		
10.200	10.200	(0.625)	64	280042	4.89272	4.893	80.00- 120.00	100.00
10.228	10.200	(0.626)	66	85313			0.00- 83.15	30.46

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
11.056	11.056	(0.677)	101	1838160	5.55362	5.554	80.00- 120.00	100.00
11.056	11.056	(0.677)	103	1189704			13.78- 113.78	64.72

12 Ethanol						CAS #: 64-17-5		
12.050	12.050	(0.738)	45	222047	4.77971	4.780	80.00- 120.00	100.00

0918

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
12 Ethanol (continued)									
12.050	12.050	(0.738)	43	49458			0.00-	76.71	22.27
12.050	12.050	(0.738)	46	87660			0.00-	90.17	39.48

15 Freon 113						CAS #: 76-13-1			
12.547	12.547	(0.768)	151	732201	5.35200	5.352	80.00-	120.00	100.00
12.547	12.547	(0.768)	153	466097			10.77-	110.77	63.66
12.547	12.547	(0.768)	101	985937			83.72-	183.72	134.65

14 1,1-Dichloroethene						CAS #: 75-35-4			
12.520	12.520	(0.767)	98	359363	5.33847	5.338	80.00-	120.00	100.00
12.520	12.520	(0.767)	61	1034332			236.35-	336.35	287.82
12.520	12.520	(0.767)	96	583787			123.22-	223.22	162.45

16 Acetone						CAS #: 67-64-1			
12.823	12.824	(0.785)	43	1150213	4.64836	4.648	80.00-	120.00	100.00
12.823	12.824	(0.785)	58	313199			0.00-	78.78	27.23

17 Carbon Disulfide						CAS #: 75-15-0			
12.906	12.906	(0.790)	76	1424918	4.63642	4.636	80.00-	120.00	100.00

18 2-Propanol						CAS #: 67-63-0			
13.238	13.238	(0.811)	45	965600	4.12854	4.128	80.00-	120.00	100.00
13.238	13.238	(0.811)	43	195786			0.00-	69.75	20.28
13.238	13.238	(0.811)	59	36891			0.00-	53.72	3.82

20 Methylene Chloride						CAS #: 75-09-2			
13.735	13.735	(0.841)	84	481818	4.92036	4.920	80.00-	120.00	100.00
13.735	13.735	(0.841)	49	734522			111.57-	211.57	152.45
13.735	13.735	(0.841)	51	211945			0.00-	93.42	43.99

21 MTBE						CAS #: 1634-04-4			
14.149	14.149	(0.866)	73	1415309	5.20306	5.203	80.00-	120.00	100.00
14.149	14.149	(0.866)	57	339318			0.00-	73.89	23.97
14.149	14.149	(0.866)	41	334420			0.00-	73.24	23.63

22 trans-1,2-Dichloroethene						CAS #: 156-60-5			
14.177	14.177	(0.868)	98	336677	4.63448	4.634	80.00-	120.00	100.00
14.177	14.177	(0.868)	61	811873			191.91-	291.91	241.14
14.177	14.177	(0.868)	96	530829			105.43-	205.43	157.67

24 Hexane						CAS #: 110-54-3			
14.563	14.563	(0.892)	57	905371	4.87933	4.879	80.00-	120.00	100.00
14.563	14.563	(0.892)	43	586279			15.23-	115.23	64.76
14.563	14.563	(0.892)	86	141958			0.00-	65.23	15.68

0919

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
25 1,1-Dichloroethane						CAS #:	75-34-3		
15.005	15.005	(0.919)	63	1092173	5.44658	5.446	80.00-	120.00	100.00
15.005	15.005	(0.919)	65	322999			0.00-	79.87	29.57

26 Vinyl Acetate						CAS #:	108-05-4		
15.060	15.060	(0.922)	43	274380	5.01010	5.010	80.00-	120.00	100.00
15.060	15.060	(0.922)	42	23701			0.00-	59.40	8.64
15.060	15.060	(0.922)	86	24029			0.00-	58.65	8.76

27 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.944	15.944	(0.976)	98	358422	5.27795	5.278	80.00-	120.00	100.00
15.944	15.944	(0.976)	61	821805			238.66-	338.66	229.28
15.944	15.944	(0.976)	96	576674			106.05-	206.05	160.89

28 2-Butanone						CAS #:	78-93-3		
15.972	15.972	(0.978)	72	240397	4.68823	4.688	80.00-	120.00	100.00
15.972	15.972	(0.978)	43	1168635			1046.10-	1146.10	486.13
15.972	15.972	(0.978)	57	90681			0.00-	89.21	37.72

23 Tetrahydrofuran						CAS #:	109-99-9		
16.331	16.331	(1.000)	42	674741	4.74199	4.742	80.00-	120.00	100.00
16.331	16.331	(1.000)	71	228424			0.00-	82.39	33.85
16.331	16.331	(1.000)	72	239726			0.00-	86.54	35.53

30 Chloroform						CAS #:	67-66-3		
16.413	16.414	(1.005)	83	1252519	5.57585	5.576	80.00-	120.00	100.00
16.413	16.414	(1.005)	85	812979			14.01-	114.01	64.91

31 Cyclohexane						CAS #:	110-82-7		
16.662	16.662	(1.020)	84	516191	5.03125	5.031	80.00-	120.00	100.00
16.662	16.662	(1.020)	56	727827			93.37-	193.37	141.00
16.662	16.662	(1.020)	41	404011			30.80-	130.80	78.27

32 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.662	16.662	(1.020)	97	1154441	6.27244	6.272	80.00-	120.00	100.00
16.662	16.662	(1.020)	99	709696			13.67-	113.67	61.48

33 Carbon Tetrachloride						CAS #:	56-23-5		
16.883	16.883	(1.034)	119	567255	3.36394	3.364	80.00-	120.00	100.00(R)
16.883	16.883	(1.034)	117	627101			62.01-	162.01	110.55

35 Benzene						CAS #:	71-43-2		
17.214	17.214	(0.967)	78	1586282	5.07643	5.076	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	343741			0.00-	72.07	21.67

36 1,2-Dichloroethane						CAS #:	107-06-2		
17.325	17.325	(0.974)	62	939544	6.18325	6.183	80.00-	120.00	100.00

0920

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	==	=====	=====	=====	=====	=====	
36 1,2-Dichloroethane (continued)									
17.325	17.325	(0.974)	64	285640			0.00-	81.56	30.40

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	894463	4.90250	4.902	80.00-	120.00	100.00
17.435	17.435	(0.980)	57	470939			1.42-	101.42	52.65
17.435	17.435	(0.980)	100	154508			0.00-	66.93	17.27

39 Trichloroethene						CAS #: 79-01-6			
18.153	18.153	(1.020)	130	651846	5.93951	5.940	80.00-	120.00	100.00
18.153	18.153	(1.020)	95	714640			66.40-	166.40	109.63
18.153	18.153	(1.020)	97	459299			23.45-	123.45	70.46

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.540	18.540	(1.042)	63	505013	5.61296	5.613	80.00-	120.00	100.00
18.540	18.540	(1.042)	62	337280			18.49-	118.49	66.79
18.540	18.540	(1.042)	41	389618			28.77-	128.77	77.15

41 1,4-Dioxane						CAS #: 123-91-1			
18.650	18.650	(1.048)	88	348937	5.46020	5.460	80.00-	120.00	100.00
18.650	18.650	(1.048)	58	276770			28.02-	128.02	79.32
18.650	18.650	(1.048)	57	90067			0.00-	75.47	25.81

42 Bromodichloromethane						CAS #: 75-27-4			
18.899	18.899	(1.062)	83	1057618	5.19602	5.196	80.00-	120.00	100.00
18.899	18.899	(1.062)	85	672400			15.18-	115.18	63.58

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.562	19.562	(1.099)	75	799461	5.85305	5.853	80.00-	120.00	100.00
19.562	19.562	(1.099)	77	251946			0.00-	80.85	31.51
19.562	19.534	(1.099)	39	520107			13.79-	113.79	65.06

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	990807	4.90891	4.909	80.00-	120.00	100.00
19.727	19.727	(1.109)	58	351739			0.00-	87.49	35.50
19.727	19.727	(1.109)	85	160555			0.00-	66.91	16.20

46 Toluene						CAS #: 108-88-3			
20.003	20.004	(1.124)	91	1792627	5.00744	5.007	80.00-	120.00	100.00
20.003	20.004	(1.124)	92	1132824			11.18-	111.18	63.19

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.362	20.363	(0.920)	75	723134	5.61046	5.610	80.00-	120.00	100.00
20.362	20.363	(0.920)	77	232016			0.00-	81.66	32.08
20.362	20.363	(0.920)	39	403602			5.44-	105.44	55.81

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.666	20.666	(0.934)	97	558074	5.52362	5.524	80.00- 120.00	100.00	
20.666	20.666	(0.934)	99	356162			12.21- 112.21	63.82	
20.666	20.666	(0.934)	83	458308			31.84- 131.84	82.12	
49 Tetrachloroethene						CAS #: 127-18-4			
20.804	20.804	(0.940)	166	724294	5.51923	5.519	80.00- 120.00	100.00	
20.804	20.804	(0.940)	129	569794			28.01- 128.01	78.67	
20.804	20.804	(0.940)	131	545189			25.86- 125.86	75.27	
50 2-Hexanone						CAS #: 591-78-6			
20.942	20.942	(0.946)	58	475502	4.77579	4.776	80.00- 120.00	100.00	
20.942	20.942	(0.946)	43	936677			144.58- 244.58	196.99	
20.942	20.942	(0.946)	100	92061			0.00- 68.76	19.36	
51 Dibromochloromethane						CAS #: 124-48-1			
21.246	21.246	(0.960)	129	751360	5.28579	5.286	80.00- 120.00	100.00	
21.246	21.246	(0.960)	208	37348			0.00- 54.14	4.97	
53 1,2-Dibromoethane						CAS #: 106-93-4			
21.467	21.467	(0.970)	107	808516	5.81133	5.811	80.00- 120.00	100.00	
21.467	21.467	(0.970)	109	769177			43.49- 143.49	95.13	
55 Chlorobenzene						CAS #: 108-90-7			
22.185	22.158	(1.002)	112	1225024	5.62323	5.623	80.00- 120.00	100.00	
22.185	22.158	(1.002)	114	389956			0.00- 82.25	31.83	
22.157	22.158	(1.001)	77	836915			19.51- 119.51	68.32	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	687535	5.49470	5.495	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	2266752			294.68- 394.68	329.69	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	1635929	10.6897	10.690	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	3506788			168.06- 268.06	214.36	
58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	724685	5.81466	5.815	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	1667919			186.48- 286.48	230.16	
59 Styrene						CAS #: 100-42-5			
23.096	23.096	(1.044)	104	873760	4.52907	4.529	80.00- 120.00	100.00	
23.096	23.096	(1.044)	78	534691			6.37- 106.37	61.19	
60 Bromoform						CAS #: 75-25-2			
23.483	23.455	(1.061)	173	507726	4.94304	4.943	80.00- 120.00	100.00	

0922

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
60 Bromoform (continued)									
23.483	23.455	(1.061)	171	255907			1.52- 101.52	50.40	

64 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
24.146	24.146	(1.091)	83	864041	5.82320	5.823	80.00- 120.00	100.00	
24.146	24.146	(1.091)	85	557118			15.24- 115.24	64.48	

66 4-Ethyltoluene						CAS #: 622-96-8			
24.449	24.450	(1.105)	105	2077389	6.25591	6.256	80.00- 120.00	100.00	
24.449	24.450	(1.105)	120	507600			0.00- 73.94	24.43	

67 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
24.560	24.560	(1.110)	105	1790319	6.07686	6.077	80.00- 120.00	100.00	
24.560	24.560	(1.110)	120	698682			0.00- 88.64	39.03	

69 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
25.195	25.195	(1.139)	105	1660377	5.89120	5.891	80.00- 120.00	100.00	
25.195	25.195	(1.139)	120	606426			0.00- 87.09	36.52	

70 1,3-Dichlorobenzene						CAS #: 541-73-1			
25.775	25.775	(1.165)	146	1204880	5.96336	5.963	80.00- 120.00	100.00	
25.775	25.775	(1.165)	148	765284			13.36- 113.36	63.52	
25.775	25.775	(1.165)	111	517746			0.00- 93.12	42.97	

71 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.941	25.941	(1.172)	146	1231456	5.85185	5.852	80.00- 120.00	100.00	
25.941	25.941	(1.172)	148	784172			12.91- 112.91	63.68	
25.941	25.941	(1.172)	111	514584			0.00- 90.99	41.79	

72 alpha-Chlorotoluene						CAS #: 100-44-7			
26.162	26.162	(1.182)	91	1713220	7.21210	7.212	80.00- 120.00	100.00(R)	
26.162	26.162	(1.182)	126	286430			0.00- 66.94	16.72	

73 1,2-Dichlorobenzene						CAS #: 95-50-1			
26.603	26.604	(1.202)	146	1064763	5.92328	5.923	80.00- 120.00	100.00	
26.603	26.604	(1.202)	148	671357			13.01- 113.01	63.05	
26.603	26.604	(1.202)	111	472636			0.00- 93.06	44.39	

75 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
29.475	29.476	(1.332)	180	1144291	7.53176	7.532	80.00- 120.00	100.00(R)	
29.475	29.476	(1.332)	182	1057401			44.99- 144.99	92.41	

76 Hexachlorobutadiene						CAS #: 87-68-3			
29.669	29.669	(1.341)	225	718335	6.86048	6.860	80.00- 120.00	100.00(R)	
29.669	29.669	(1.341)	223	457897			13.94- 113.94	63.74	

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====		=====
62 Cumene						CAS #:	98-82-8		
23.621	23.621	(1.067)	105	2027820	6.70223	6.702	80.00-	120.00	100.00
23.621	23.621	(1.067)	120	435668			0.00-	70.65	21.48

65 Propylbenzene						CAS #:	103-65-1		
24.284	24.284	(1.097)	91	1817401	4.36517	4.365	80.00-	120.00	100.00
24.284	24.284	(1.097)	120	346995			0.00-	69.13	19.09

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

0924

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i
Lab File ID: 7020906.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: WW
Method File: /chem/msd7.i/7-09feb.b/t141J27b.m
Misc Info: 100mL [5.0ppbv]

Calibration Date: 09-FEB-2005
Calibration Time: 04:31
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	454069	272441	635697	469592	3.42
38 1,4-Difluorobenze	2118699	1271219	2966179	2153127	1.62
54 Chlorobenzene-d5	1488058	892835	2083281	1524006	2.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

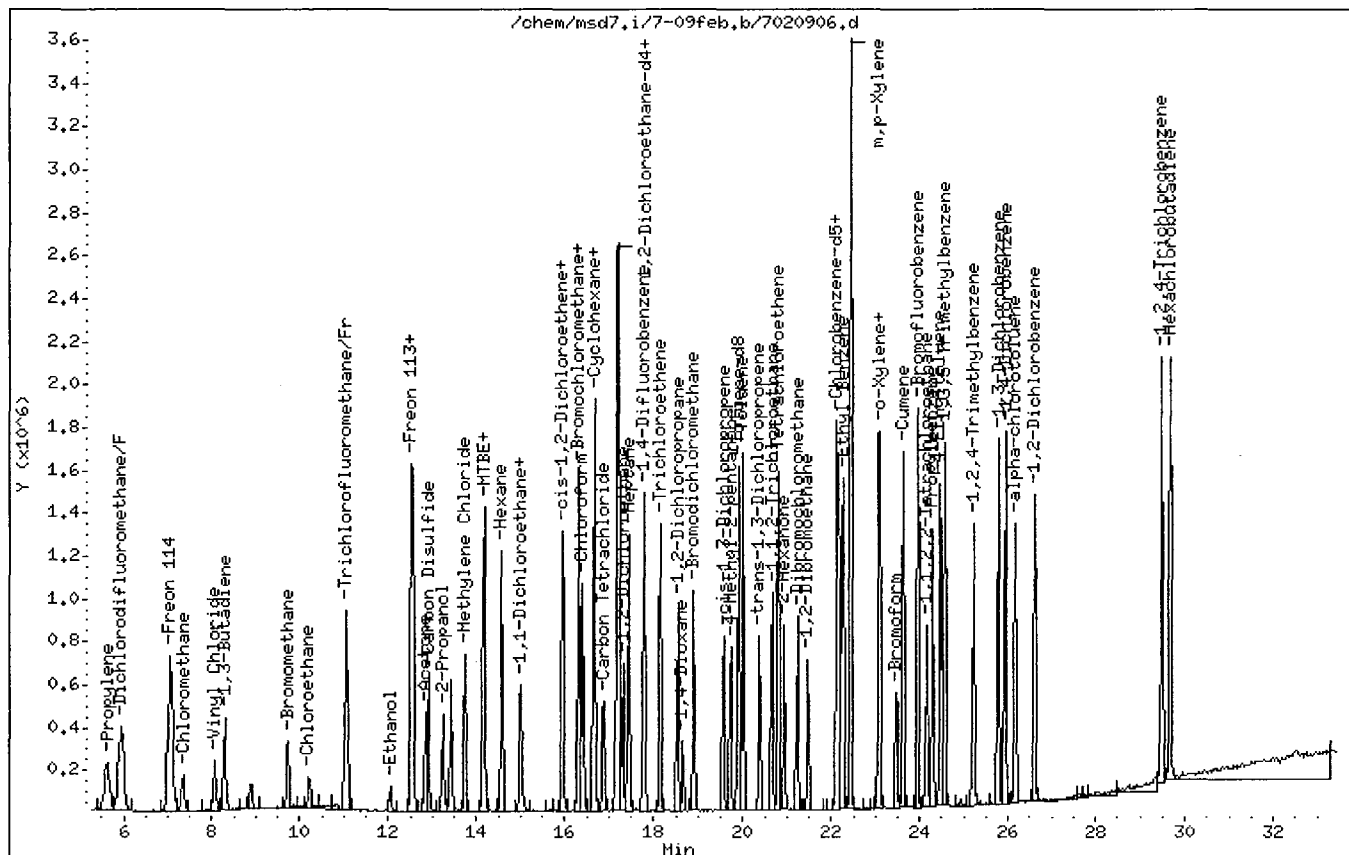
0925

SCOEPAA00032597

Instrument: msd7.i

Operator: WW

Column diameter: 0.32



0926

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

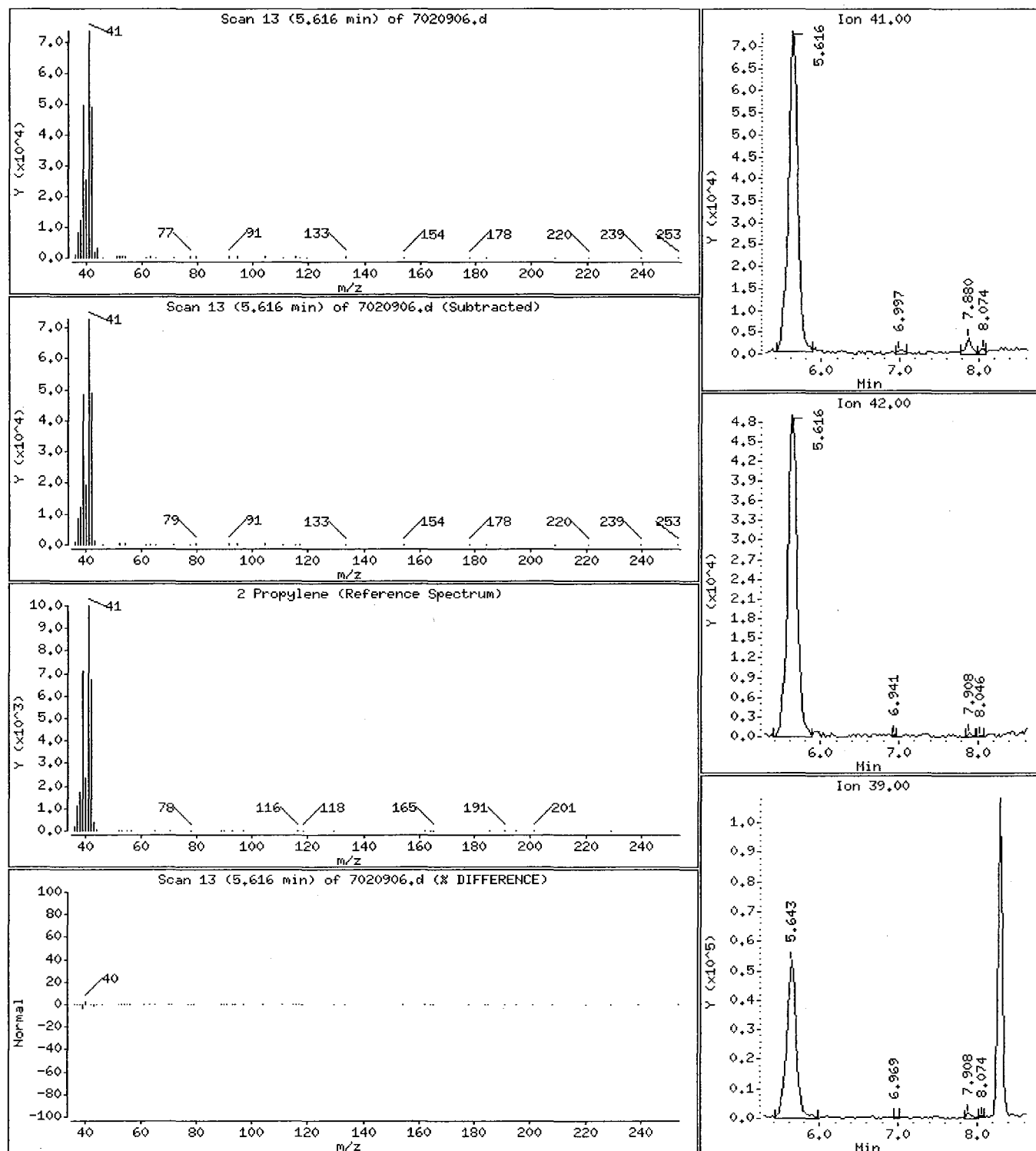
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

2 Propylene

Concentration: 5.902 PPBV



0927

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

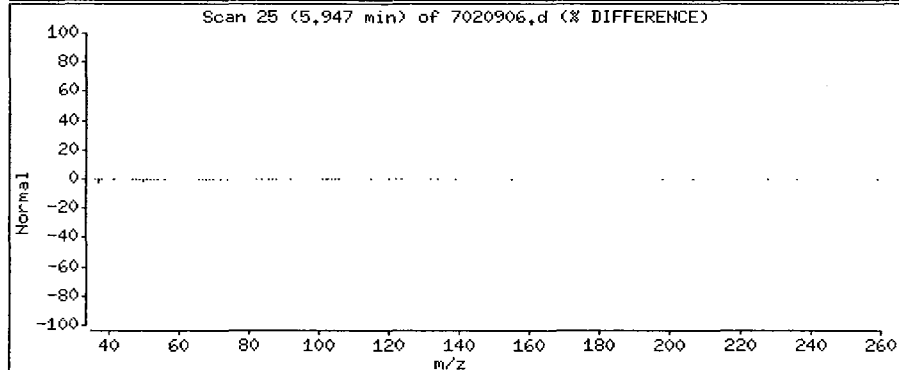
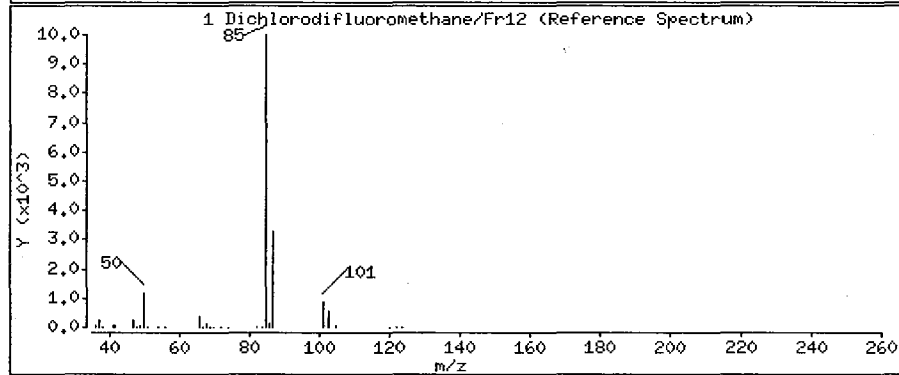
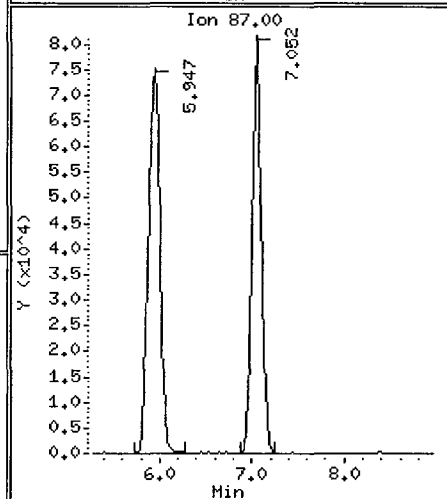
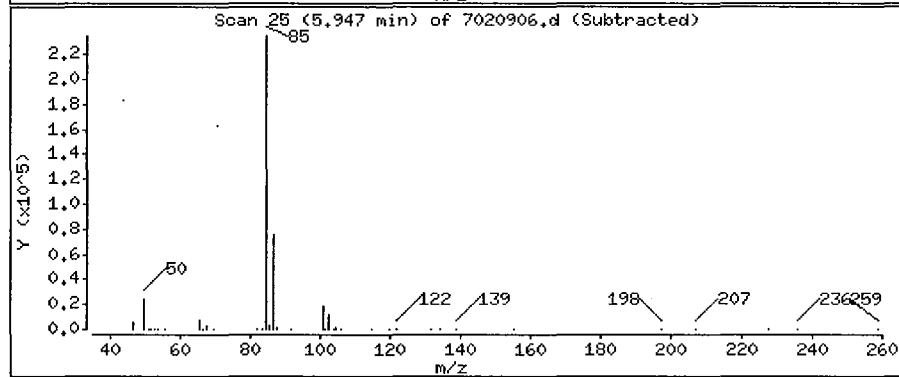
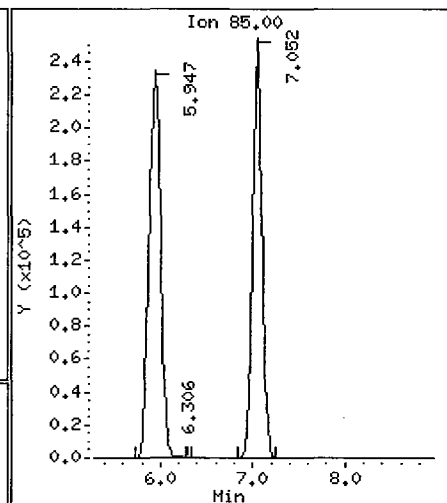
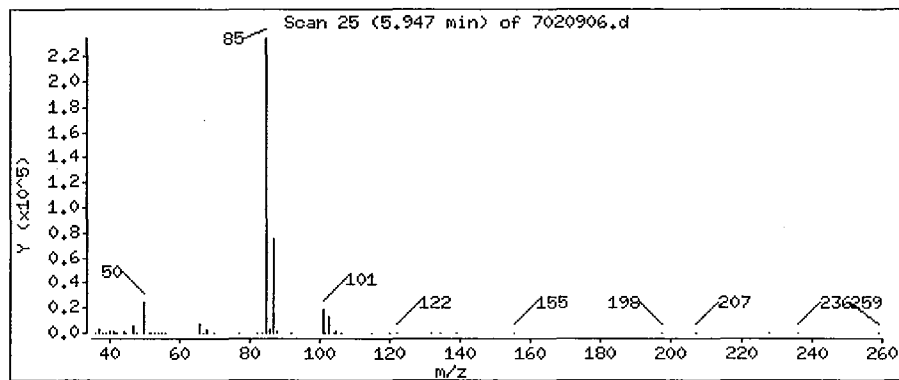
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

1 Dichlorodifluoromethane/Fr12

Concentration: 5.314 PPBV



0928

SCOEPAA00032600

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

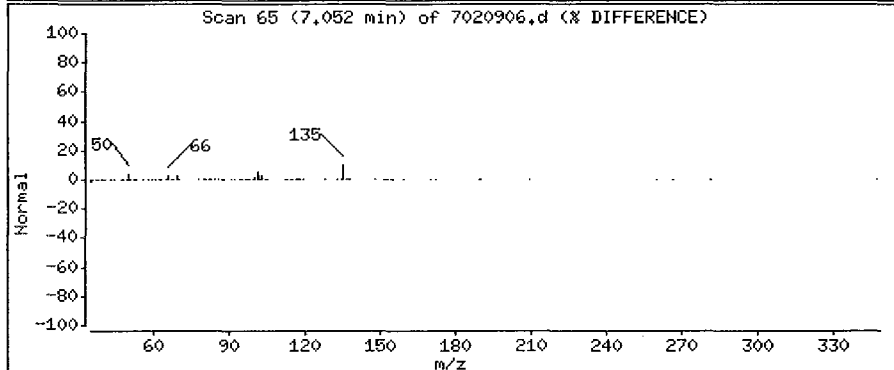
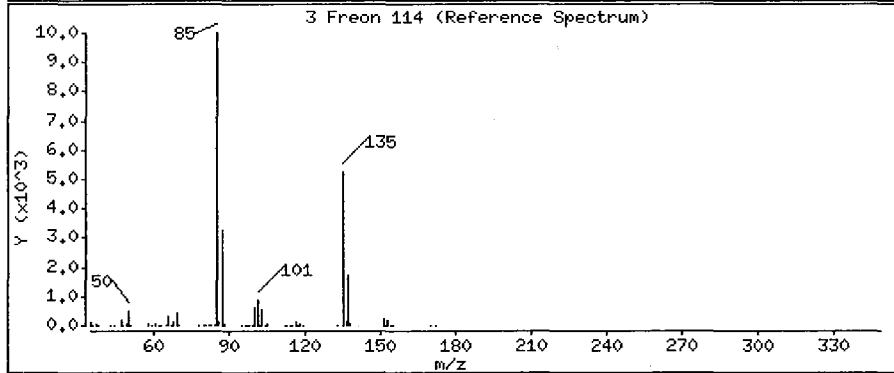
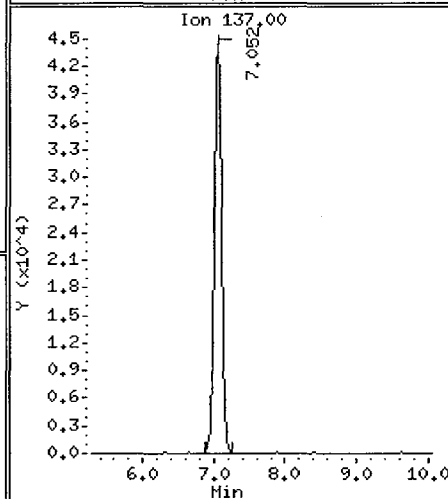
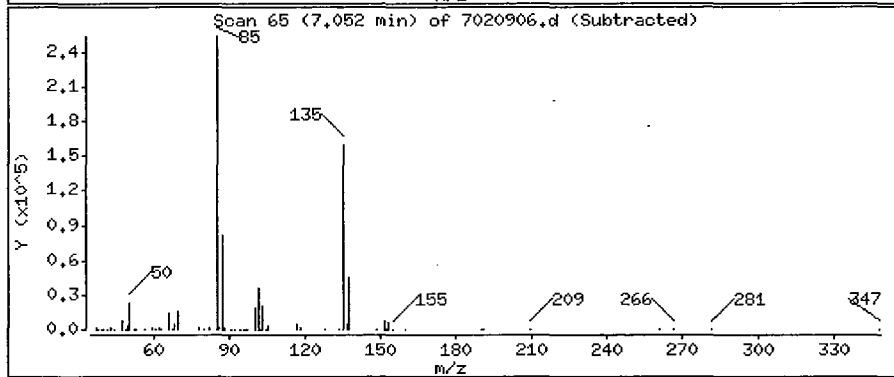
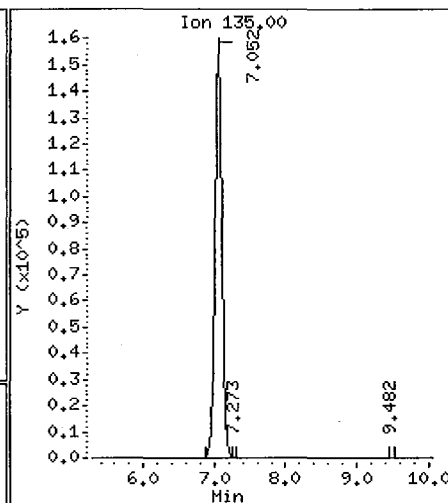
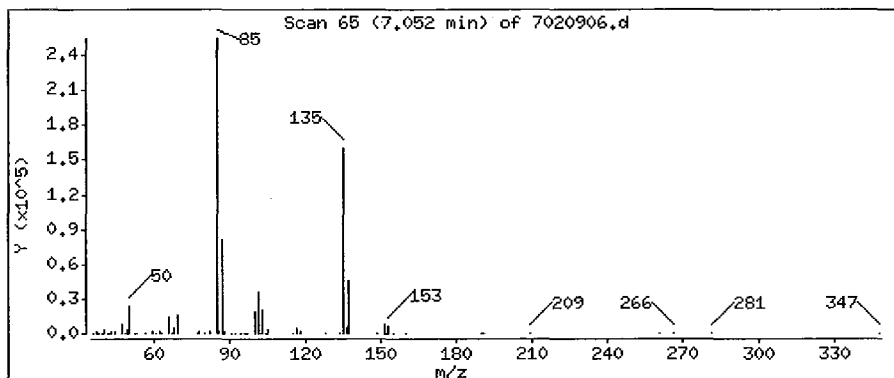
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

3 Freon 114

Concentration: 5.404 PPBV



0929

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

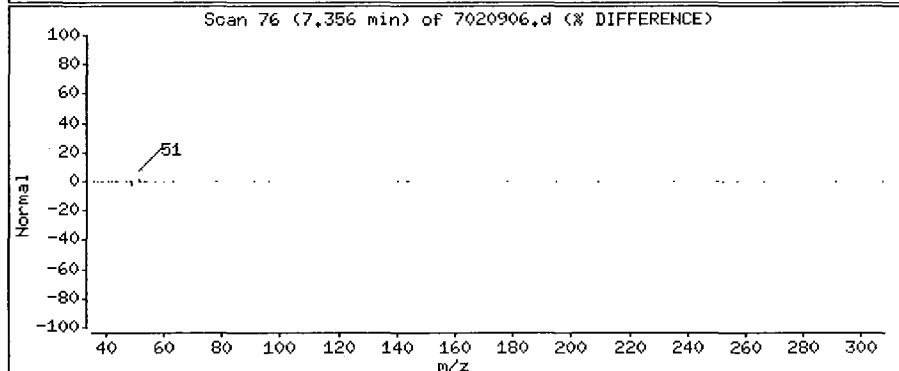
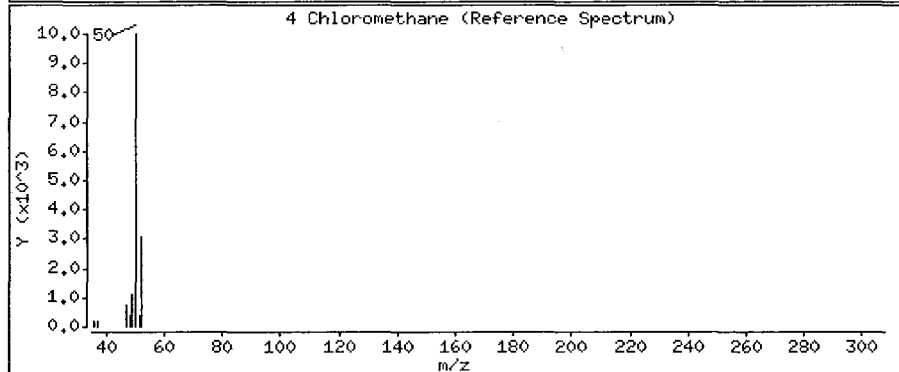
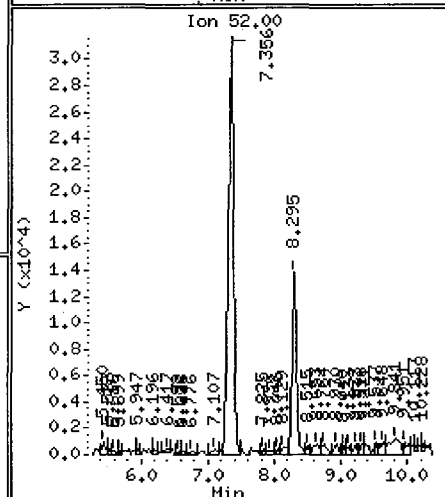
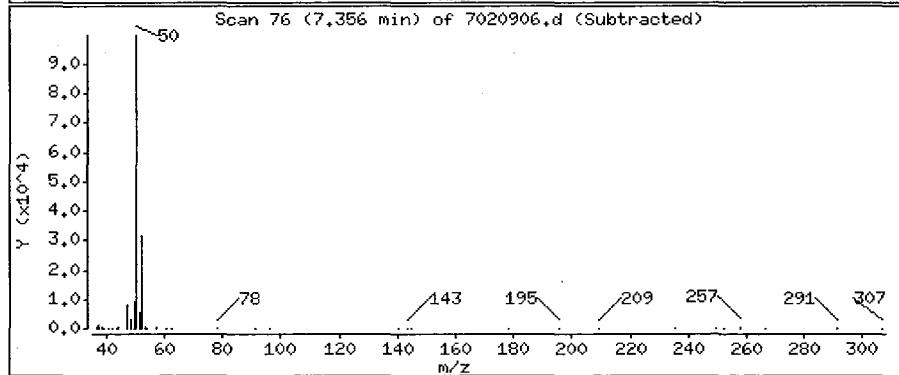
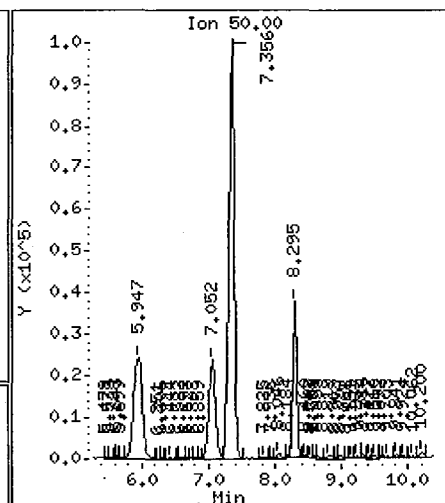
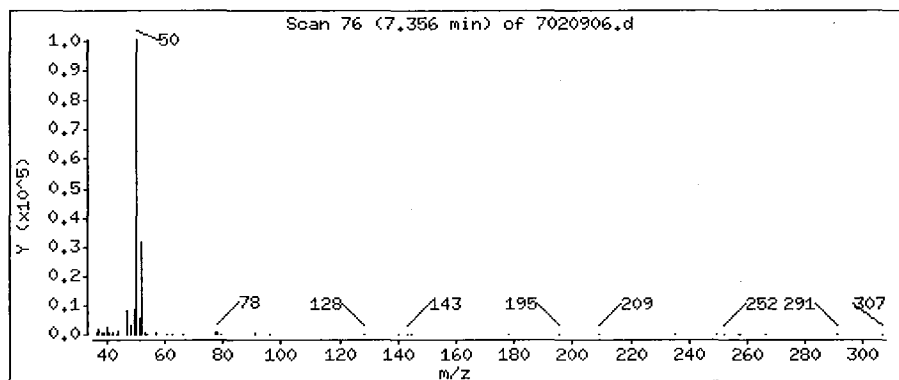
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

4 Chloromethane

Concentration: 5.085 PPBV



0930

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

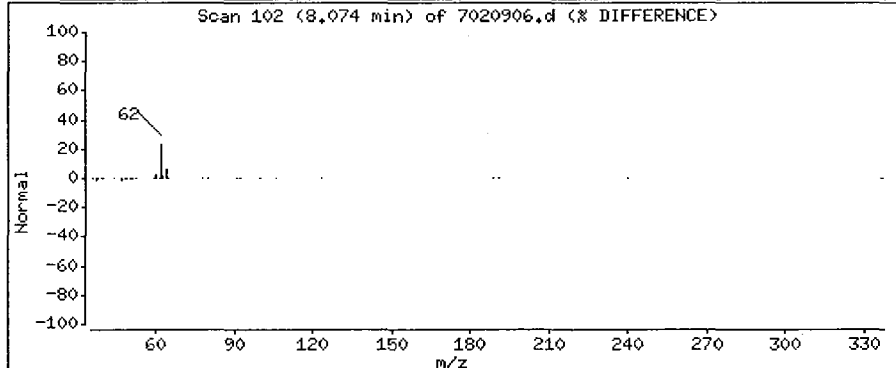
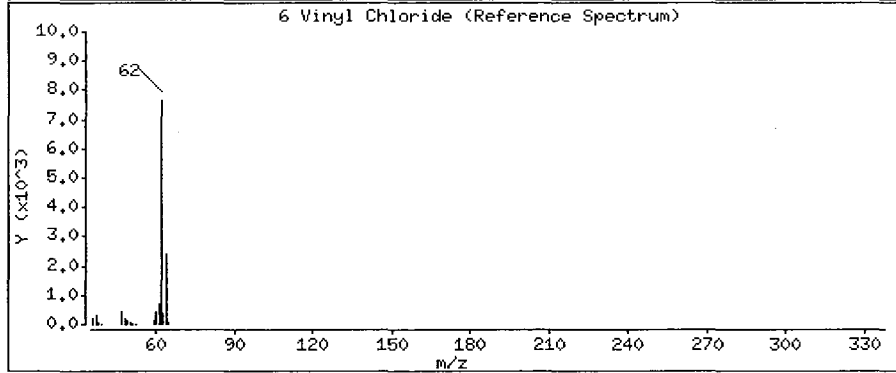
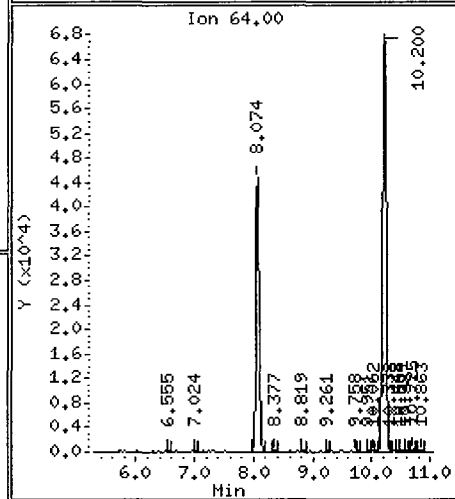
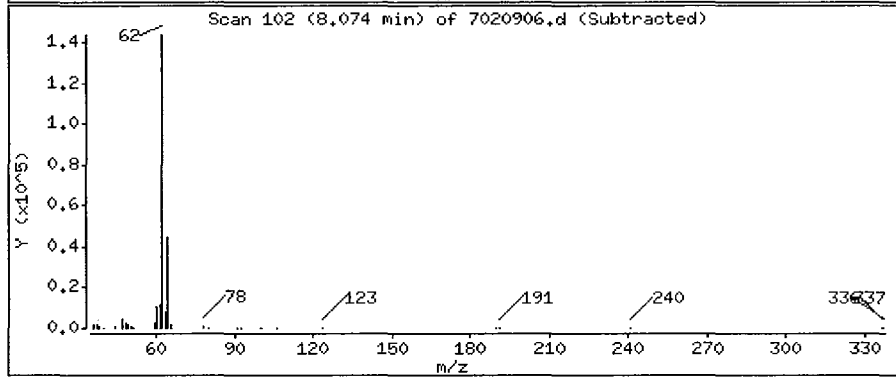
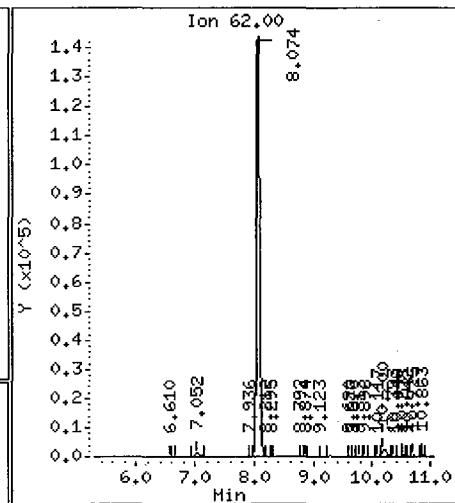
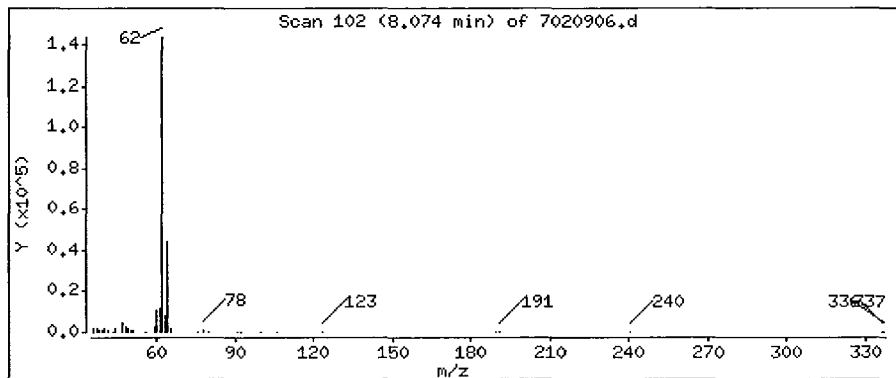
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

6 Vinyl Chloride

Concentration: 5.266 PPBV



0931

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

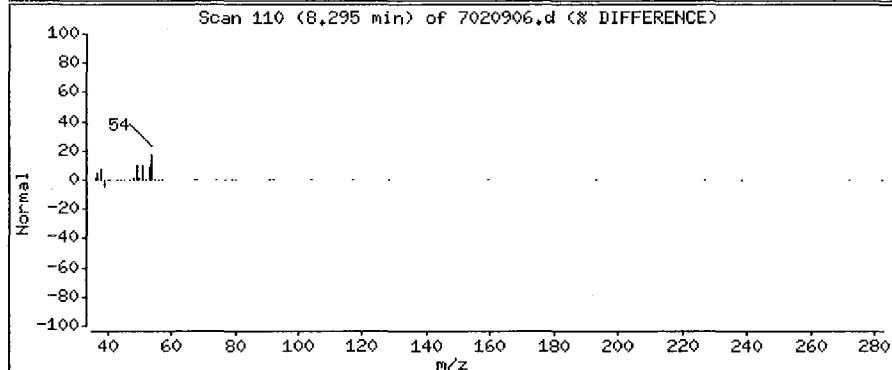
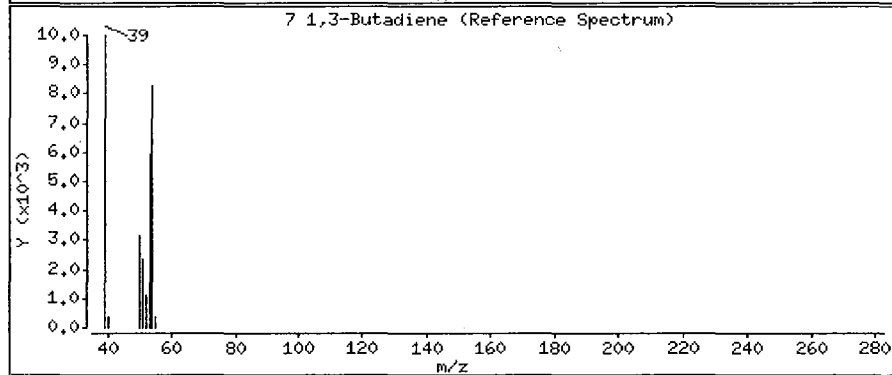
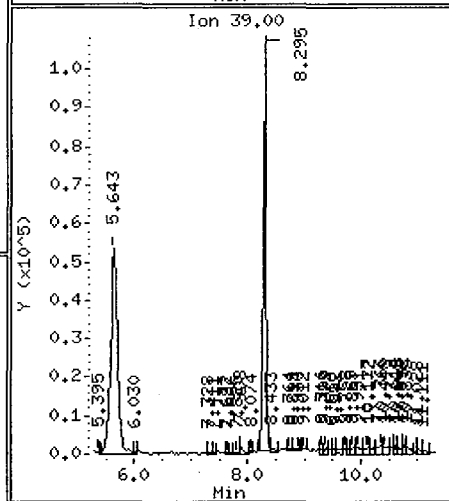
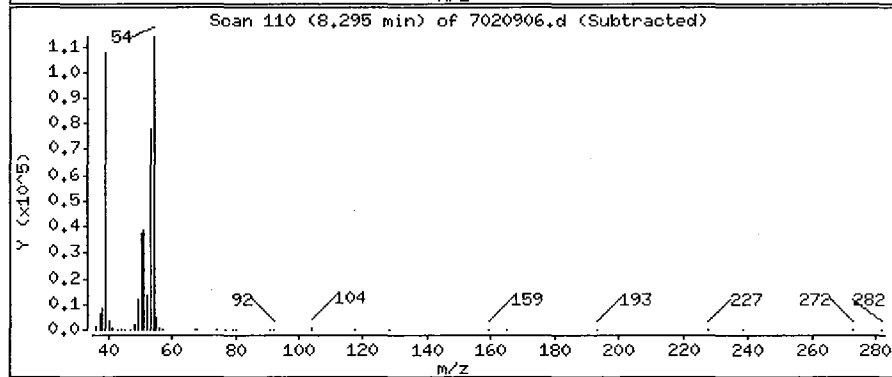
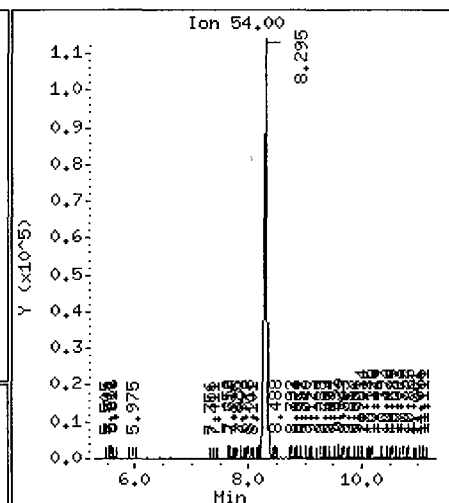
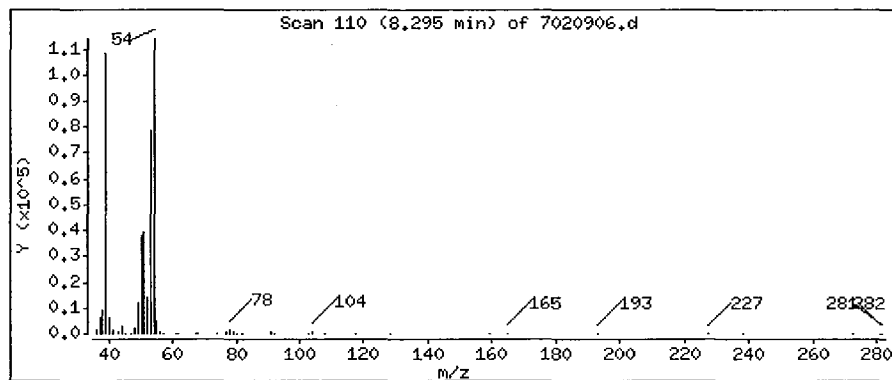
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

7 1,3-Butadiene

Concentration: 4.432 PPBV



0932

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

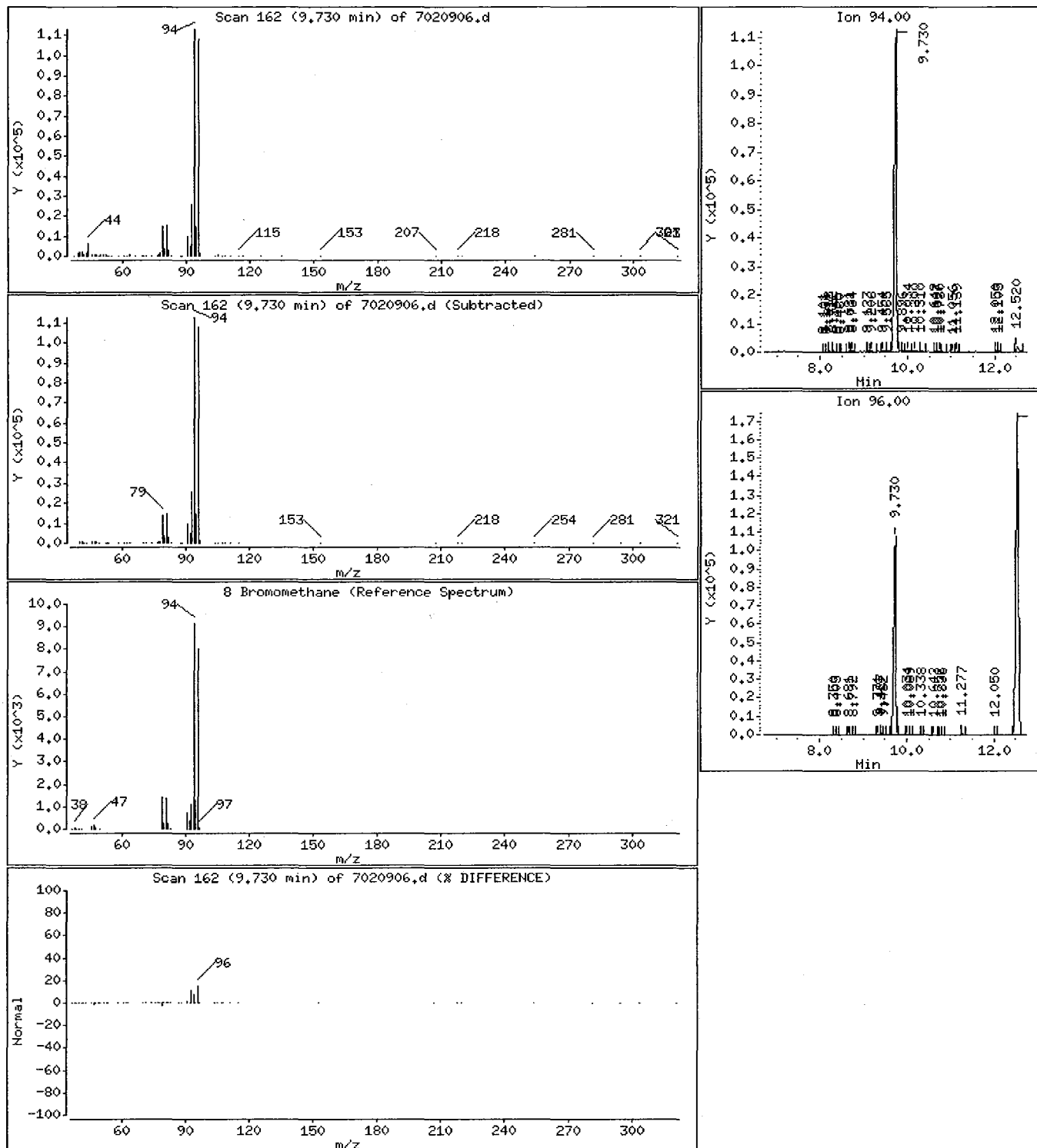
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

8 Bromomethane

Concentration: 4.716 PPBV



0933

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

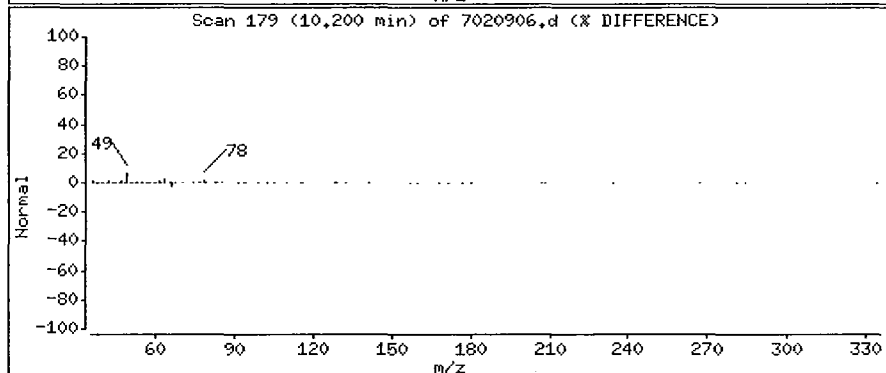
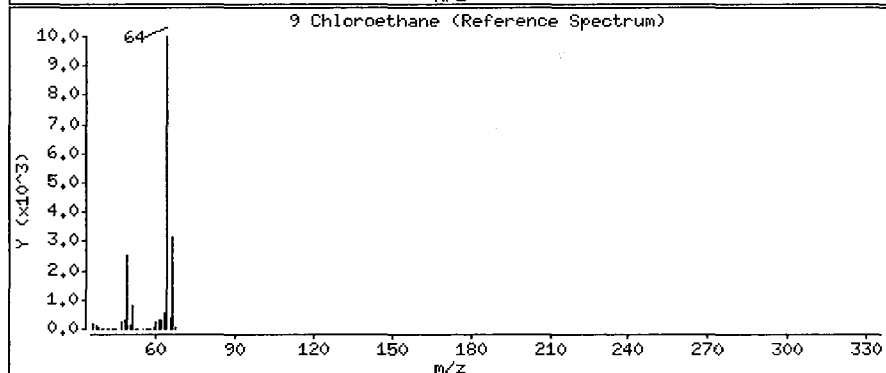
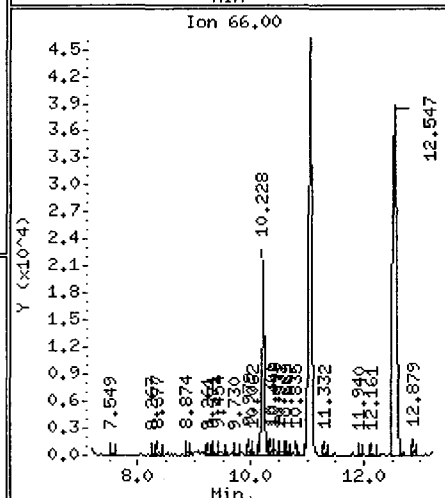
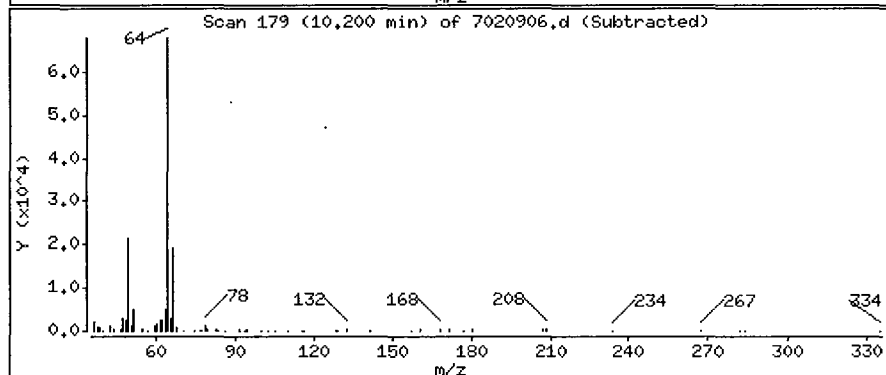
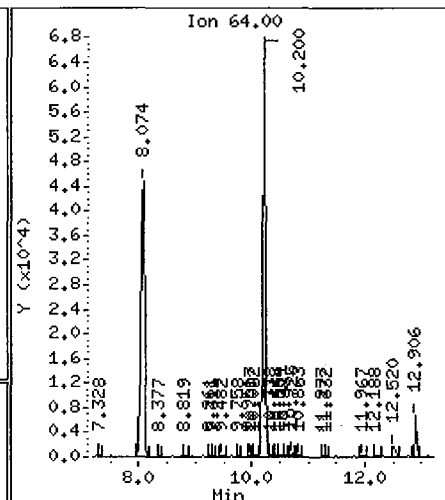
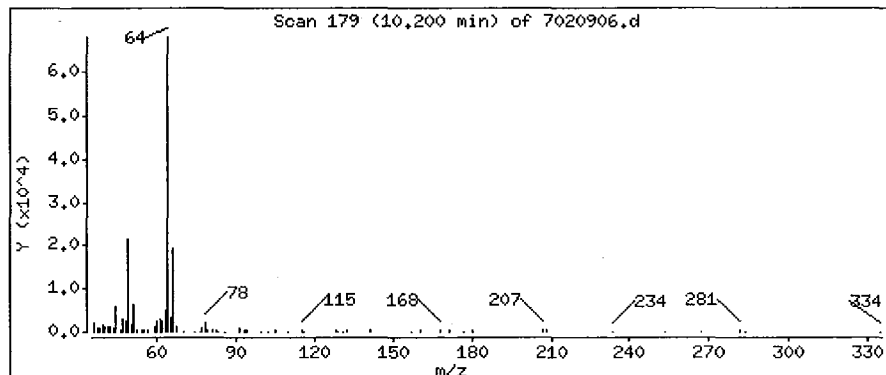
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

9 Chloroethane

Concentration: 4.893 PPBV



0934

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

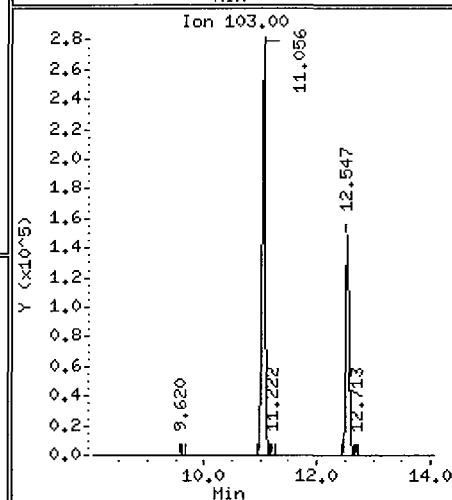
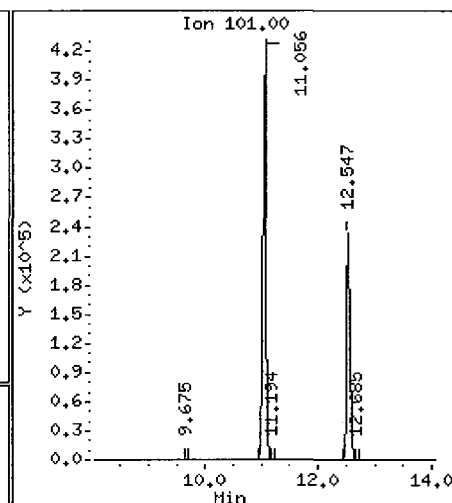
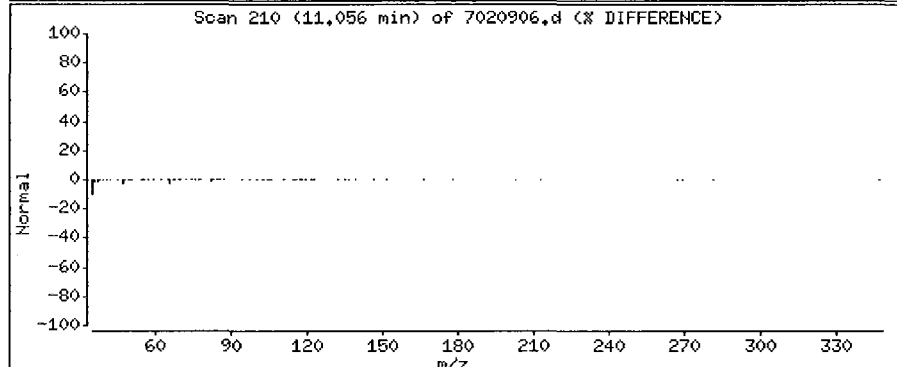
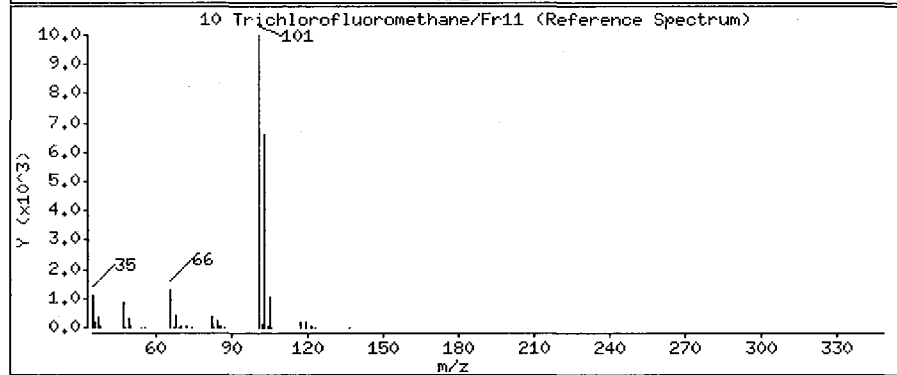
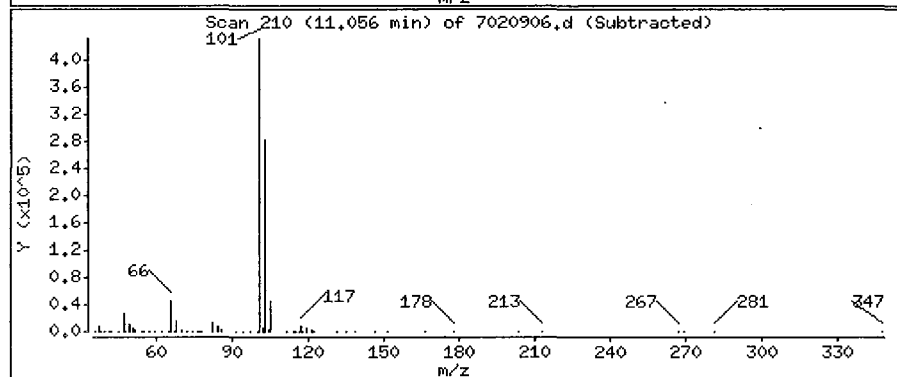
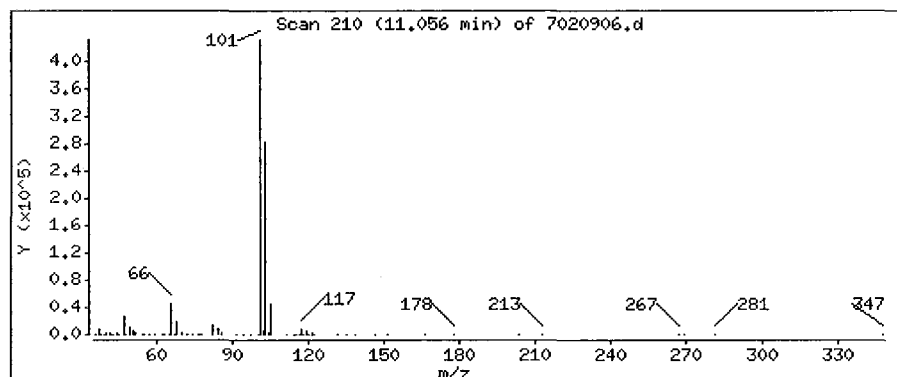
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

10 Trichlorofluoromethane/Fr11

Concentration: 5.554 PPBV



0935

SCOEPAA00032607

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

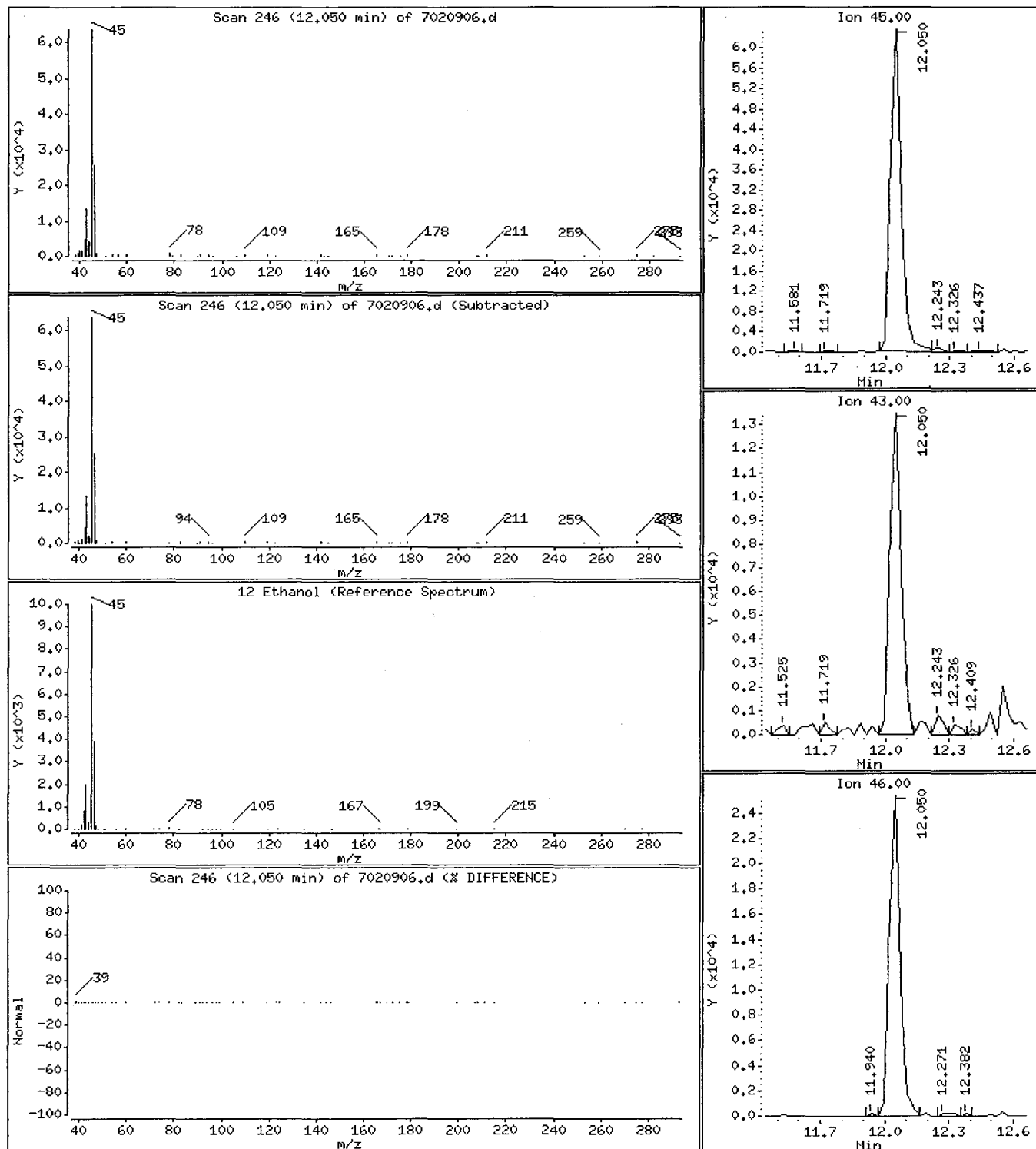
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

12 Ethanol

Concentration: 4,780 PPBV



0936

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

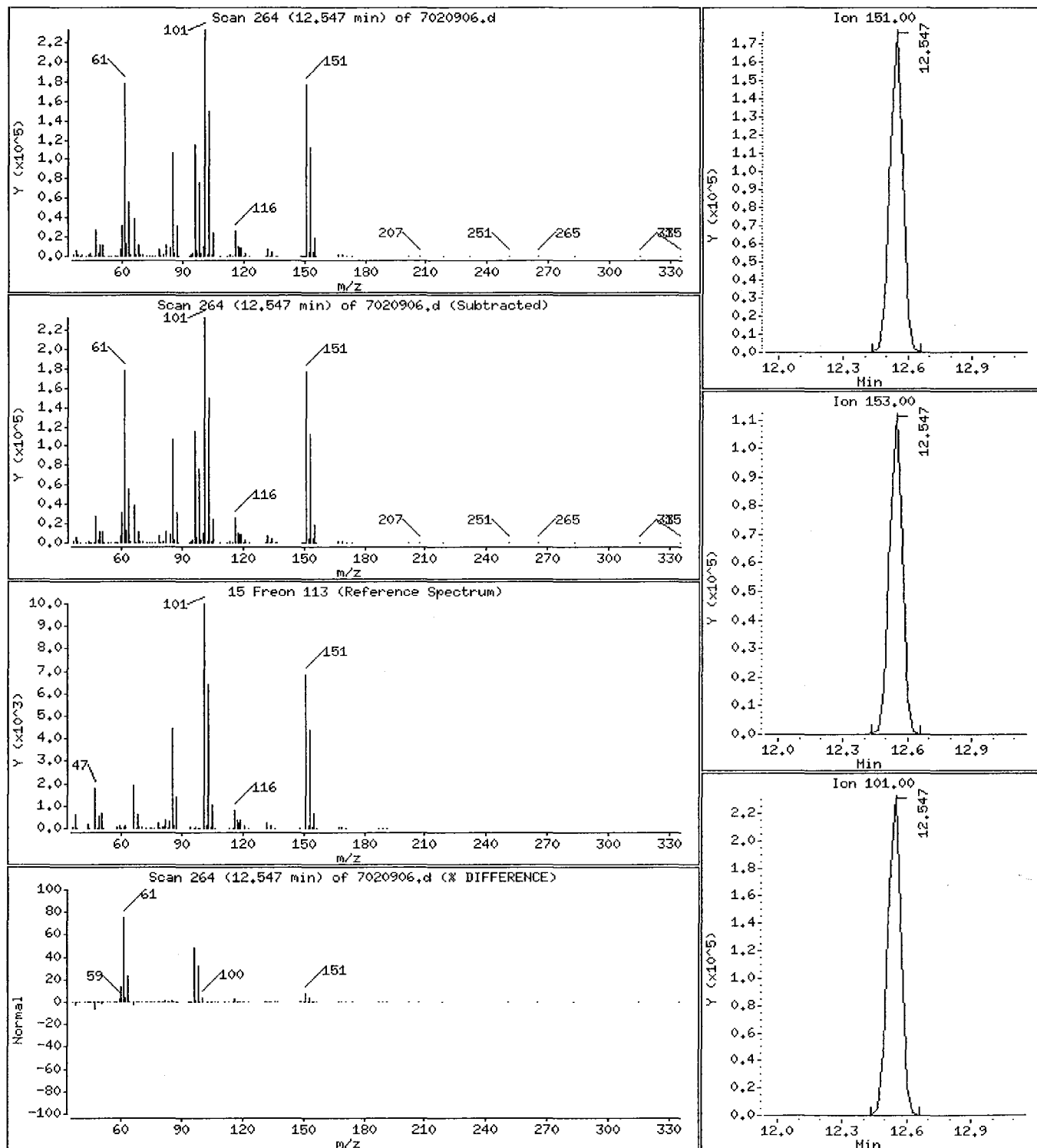
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

15 Freon 113

Concentration: 5.352 PPBV



0937

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

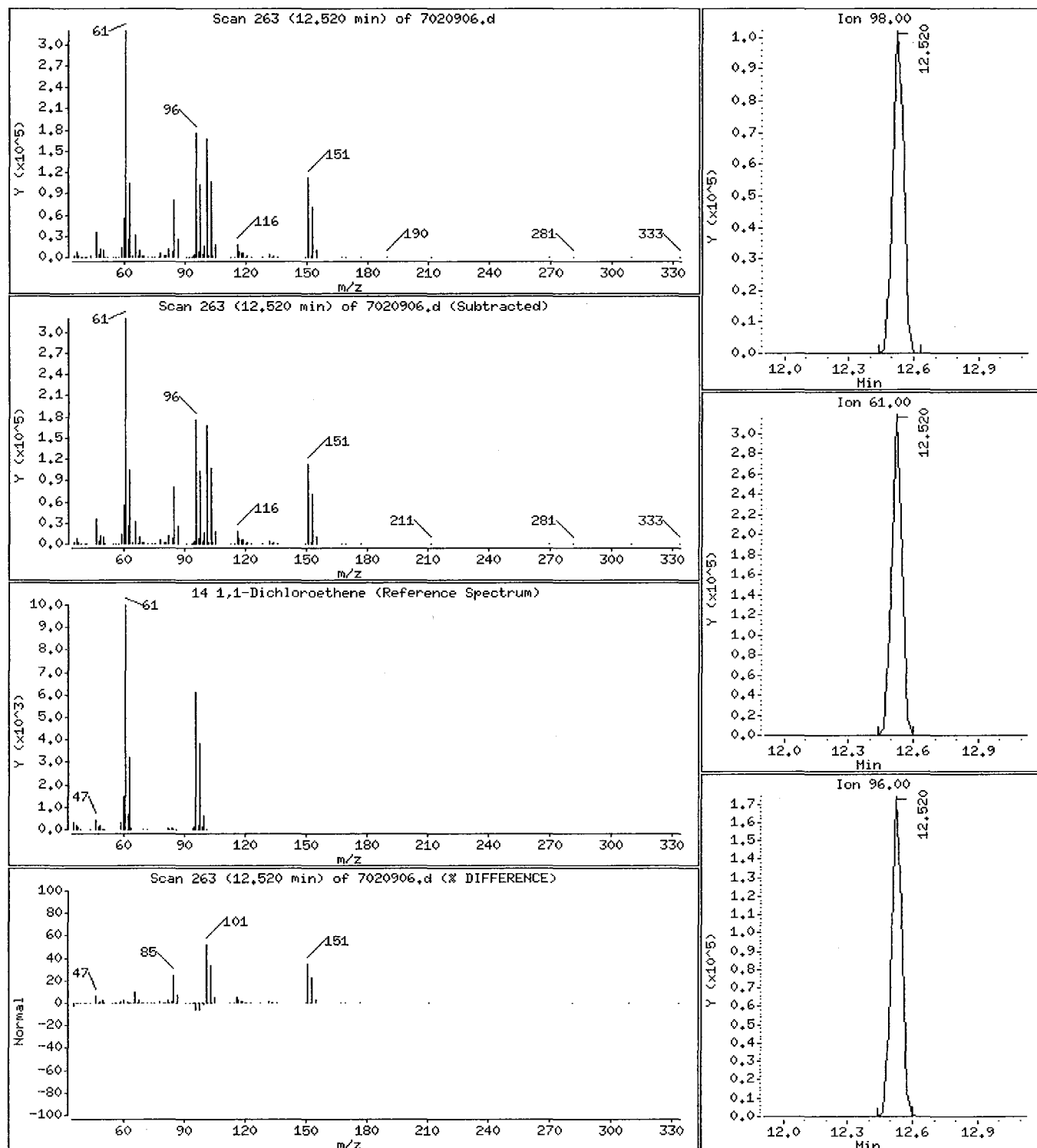
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

14 1,1-Dichloroethene

Concentration: 5.338 PPBV



0938

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

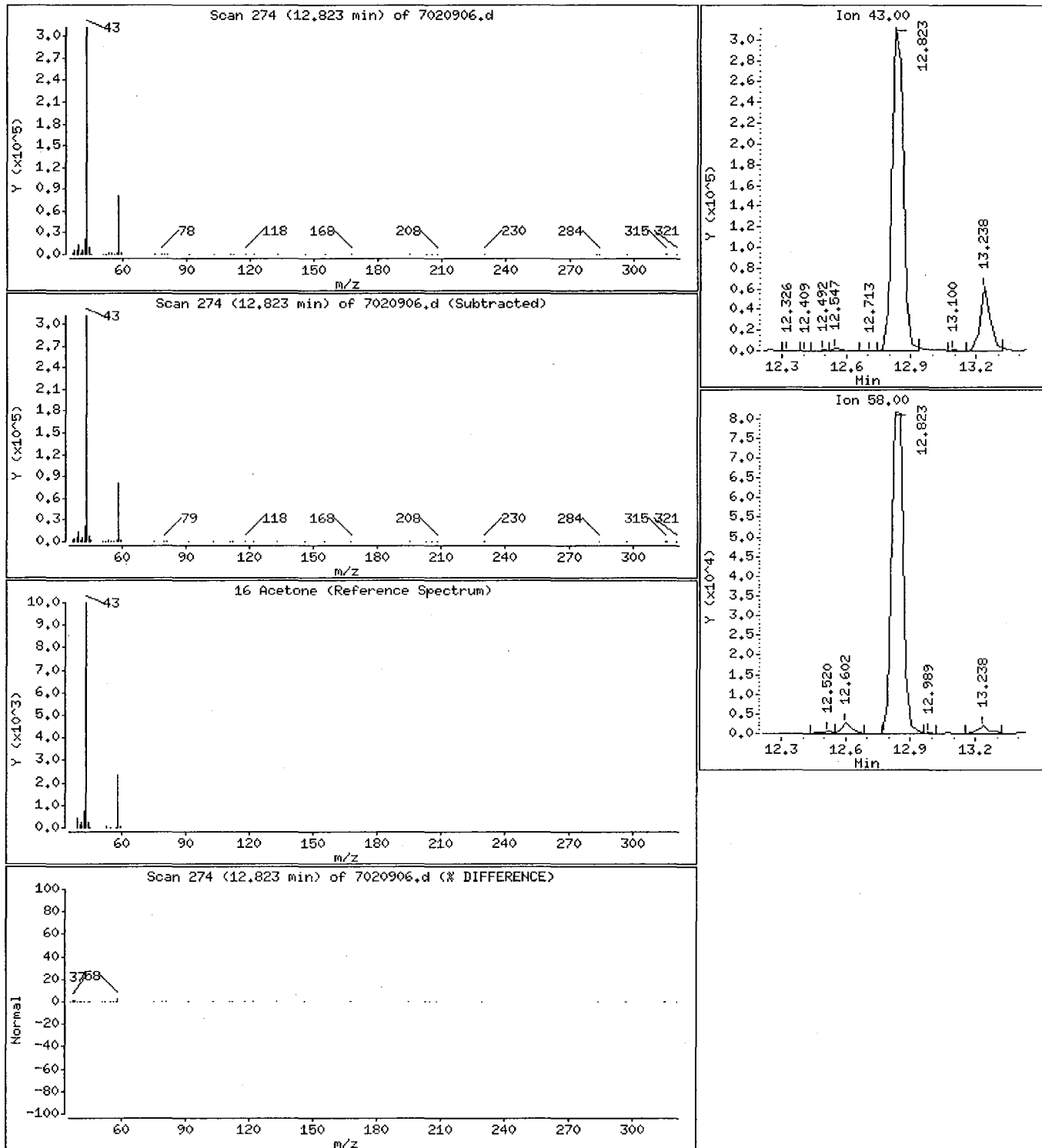
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

16 Acetone

Concentration: 4.648 PPBV



0939

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

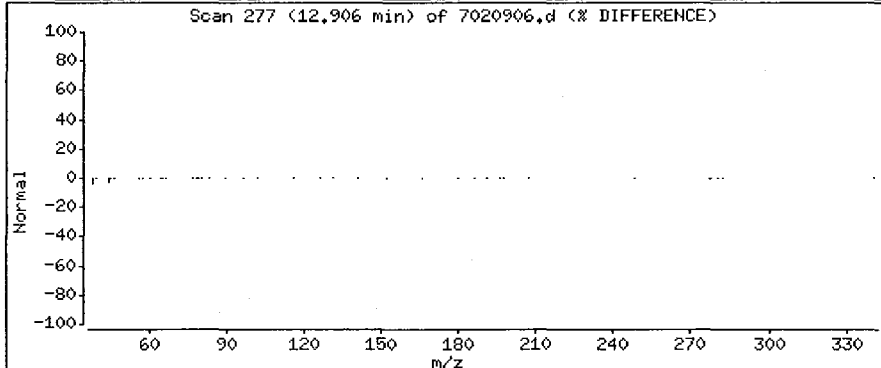
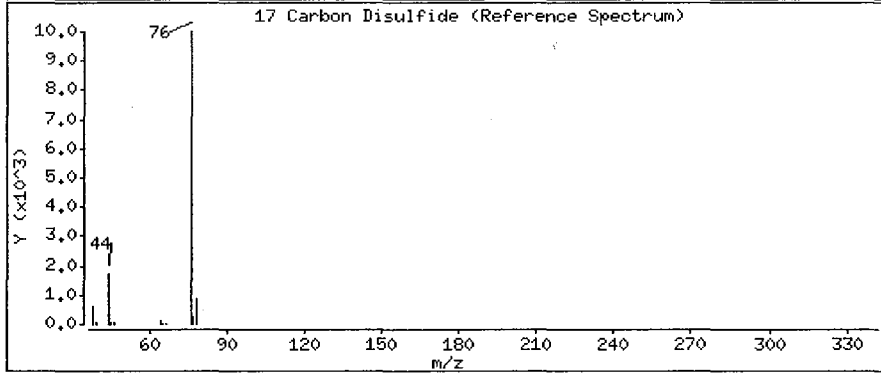
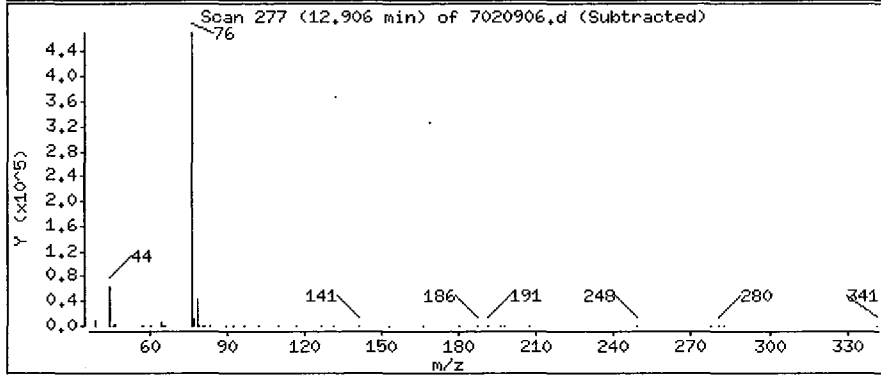
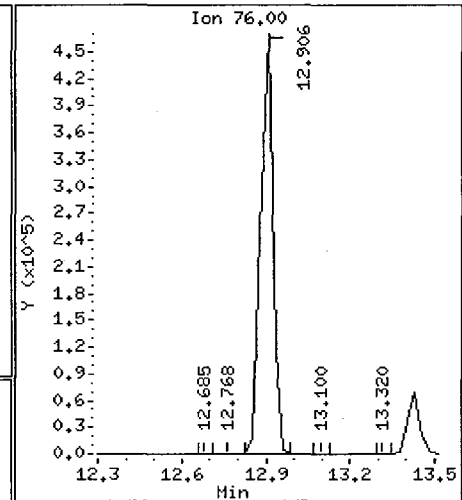
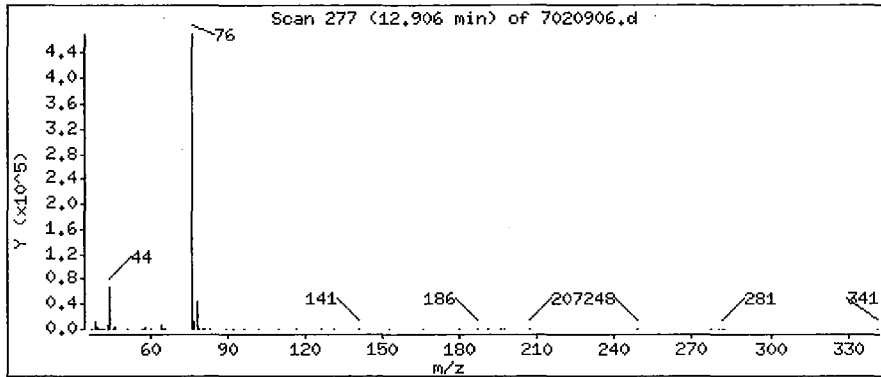
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

17 Carbon Disulfide

Concentration: 4.636 PPBV



0940

SCOEP00032612

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

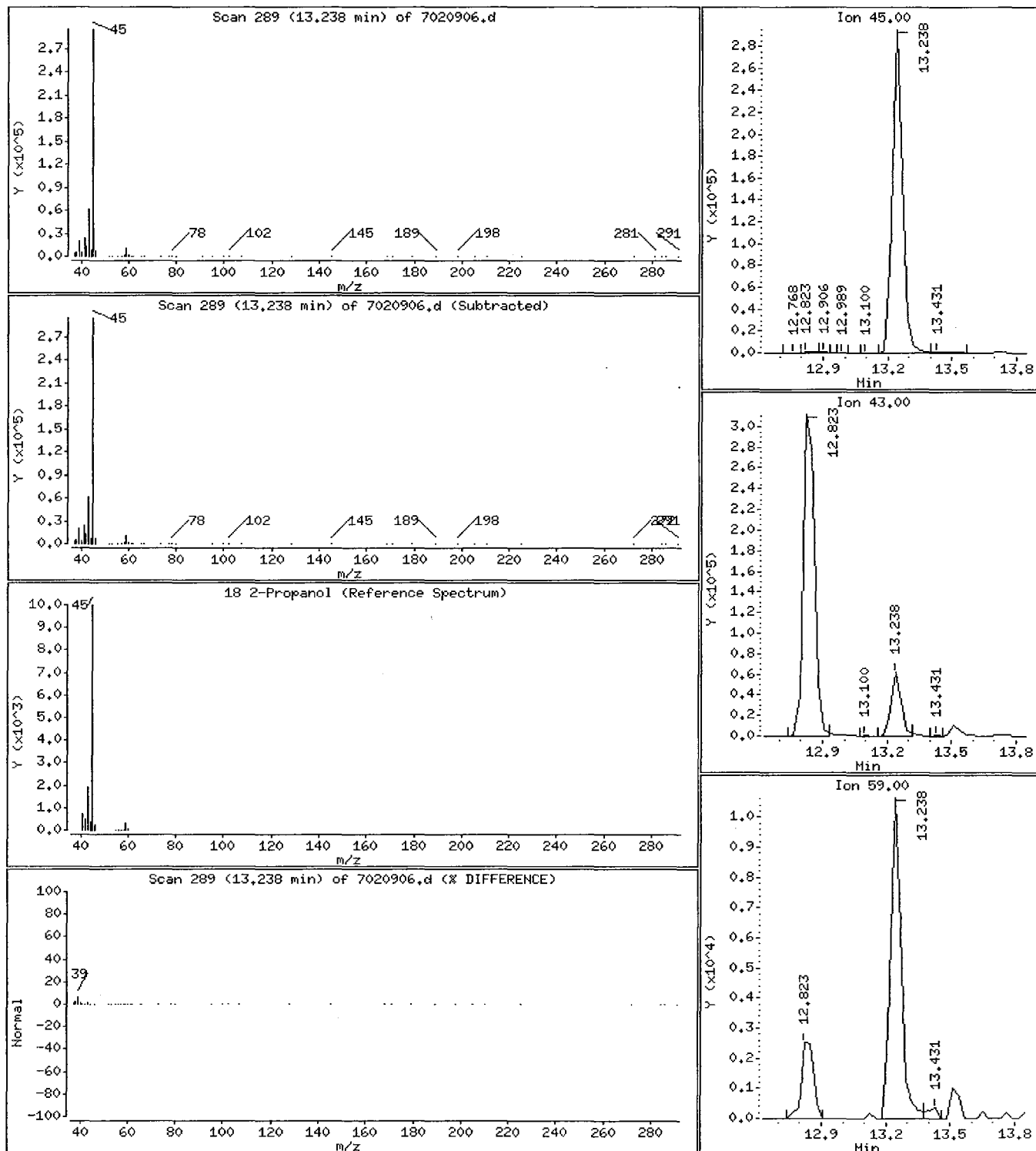
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

18 2-Propanol

Concentration: 4.128 PPBV



0941

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

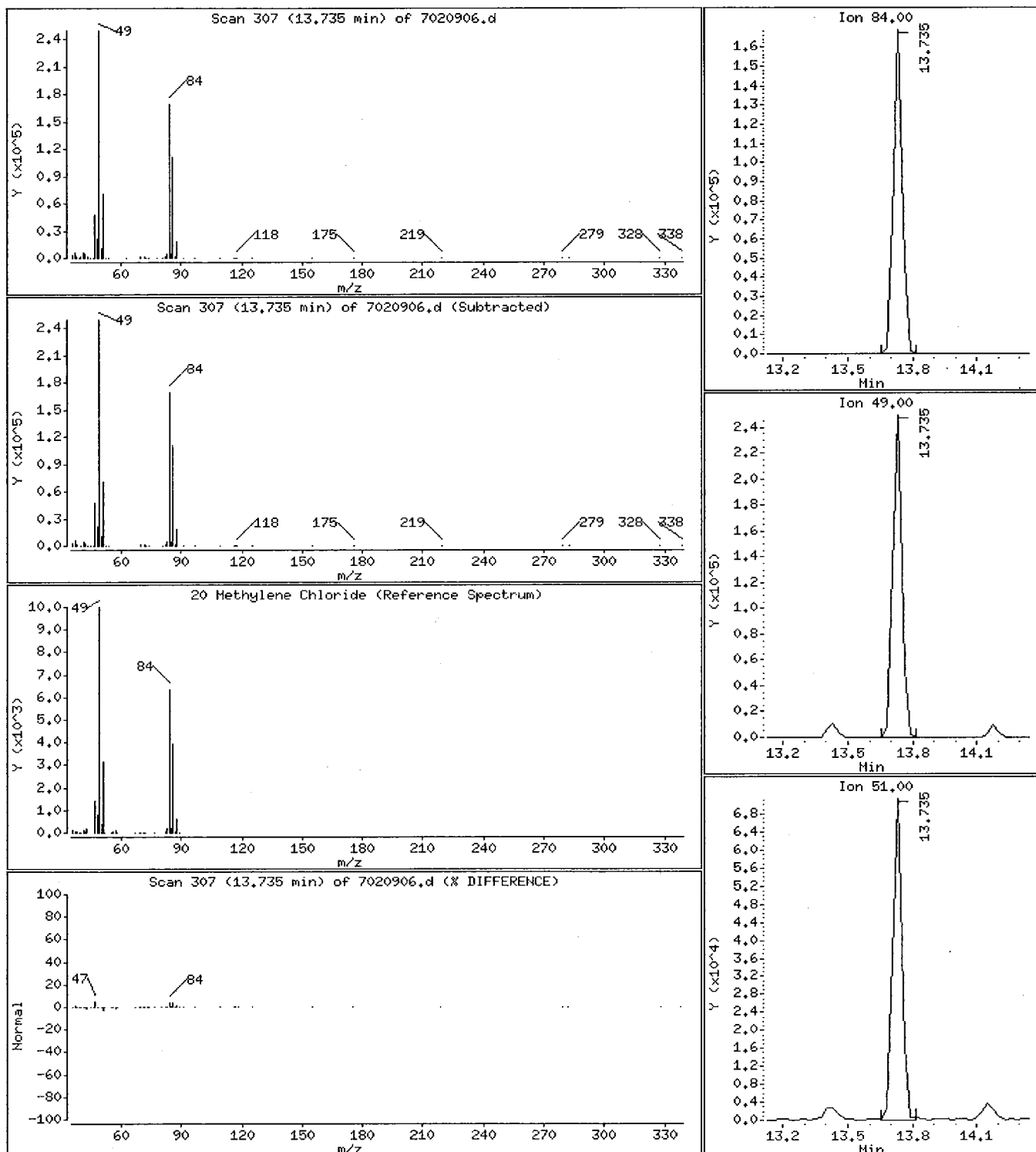
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

20 Methylene Chloride

Concentration: 4.920 PPBV



0942

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

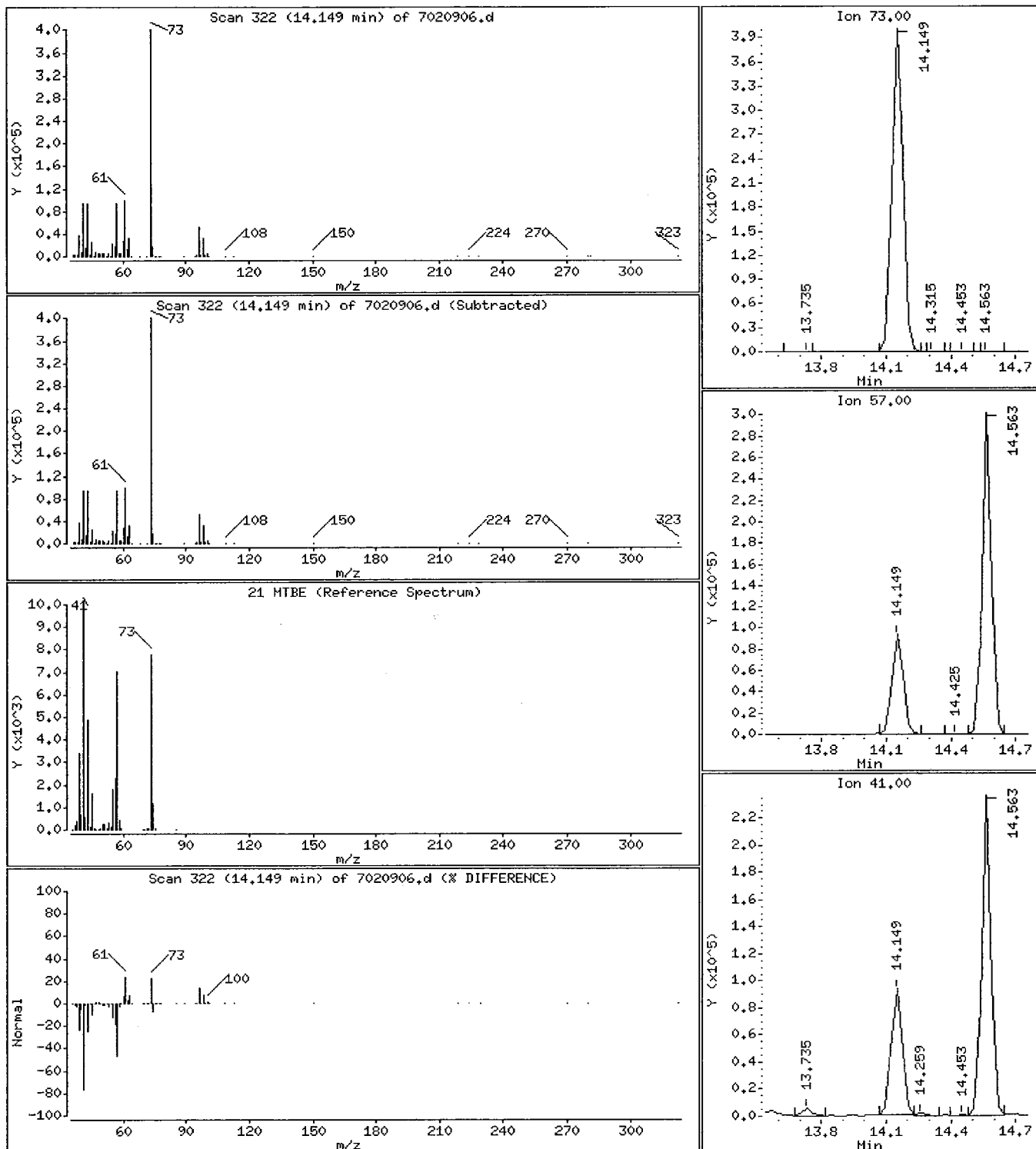
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

21 MTBE

Concentration: 5.203 PPBV



0943

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

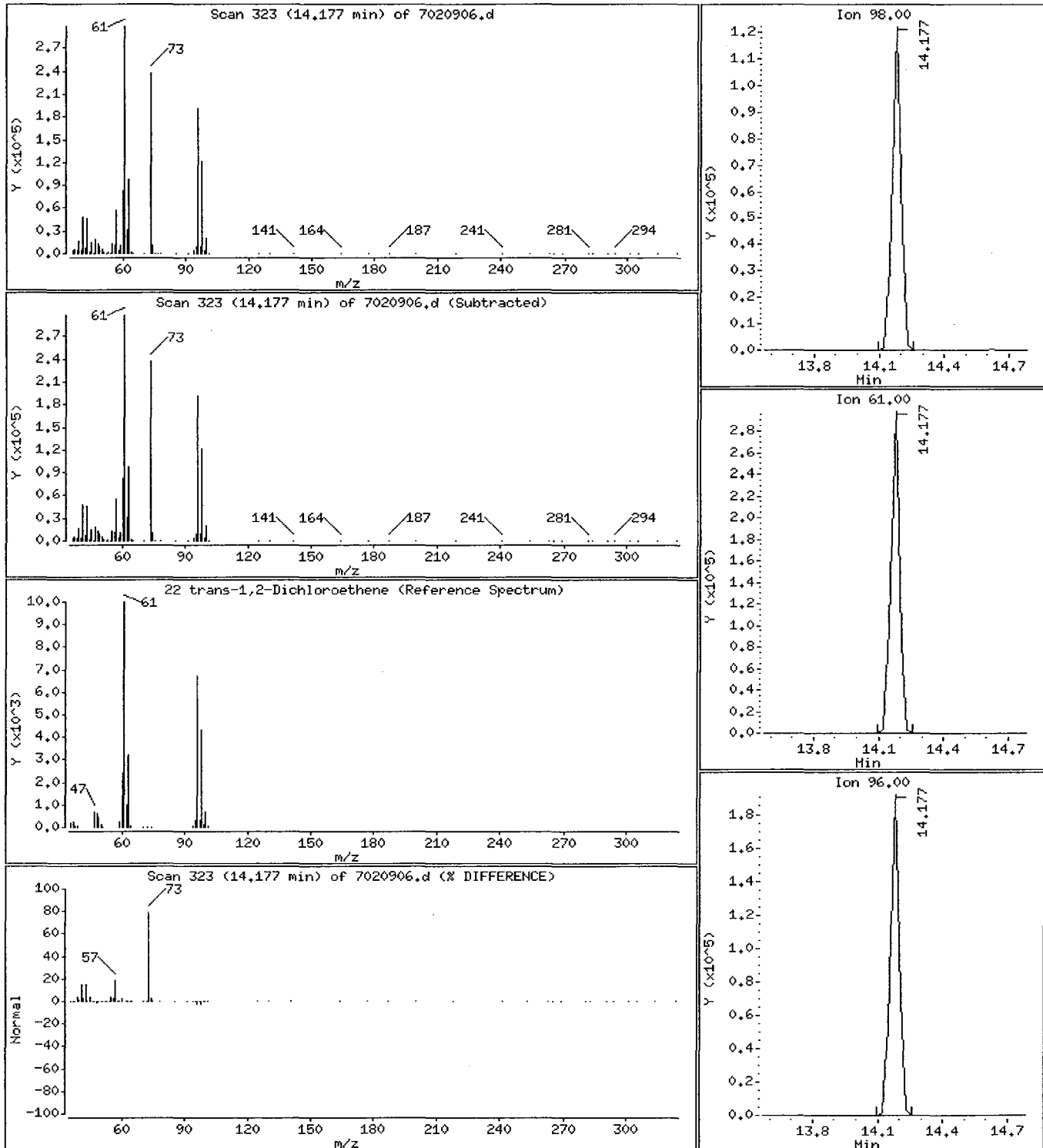
Operator: WW

Column phase: RTx-624

Column diameter: 0.32

22 trans-1,2-Dichloroethene

Concentration: 4,634 PPBV



0944

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

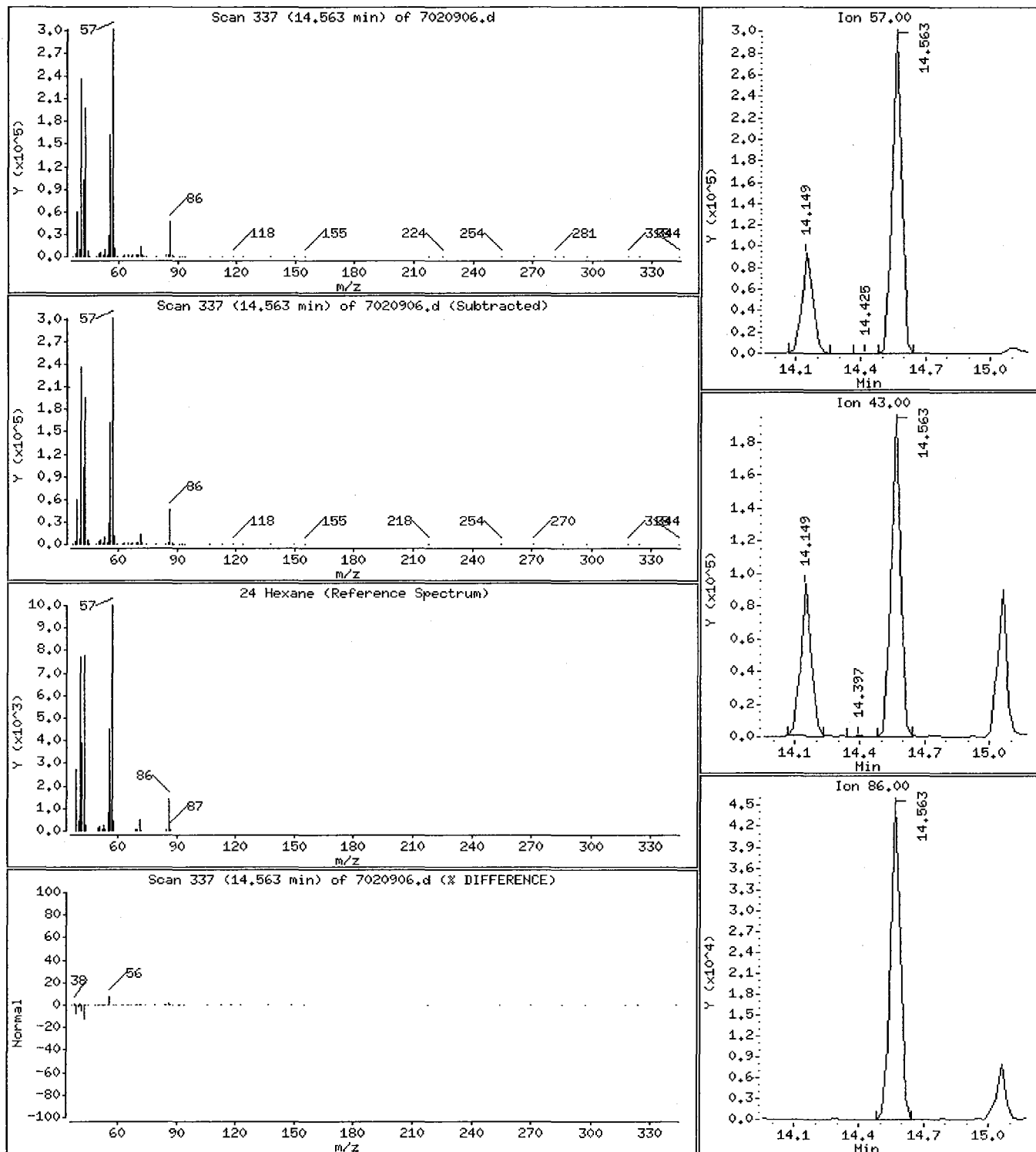
Operator: NM

Column phase: RTX-624

Column diameter: 0.32

24 Hexane

Concentration: 4.879 PPBV



0945

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

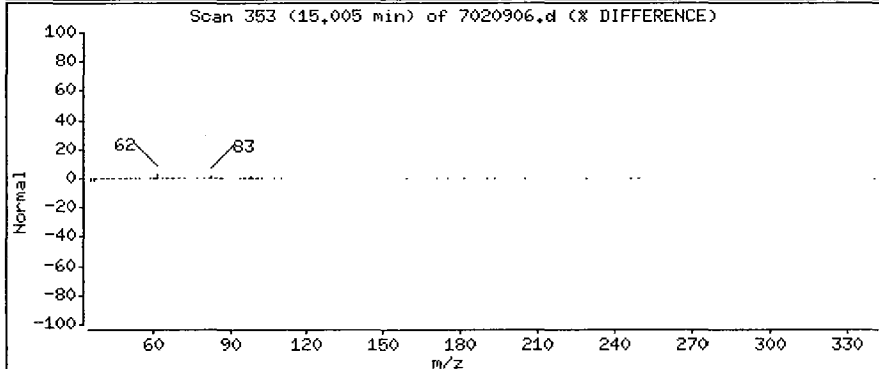
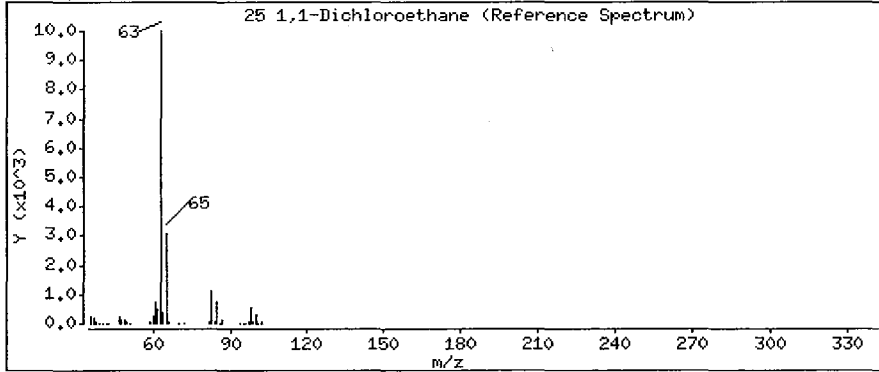
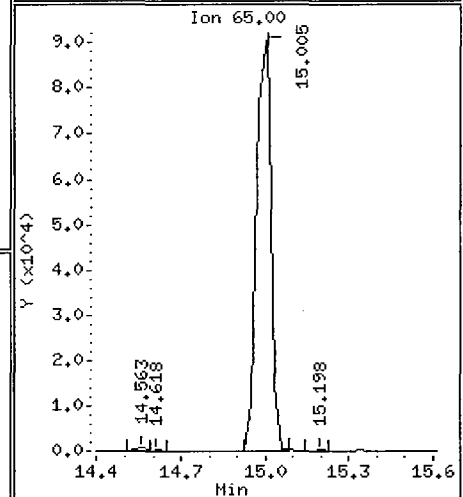
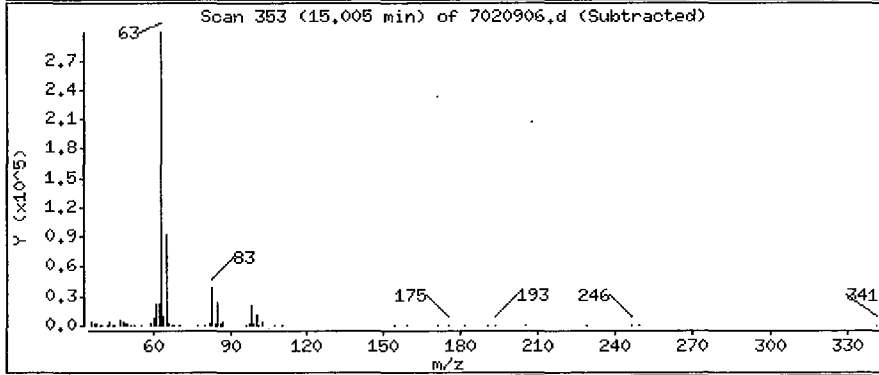
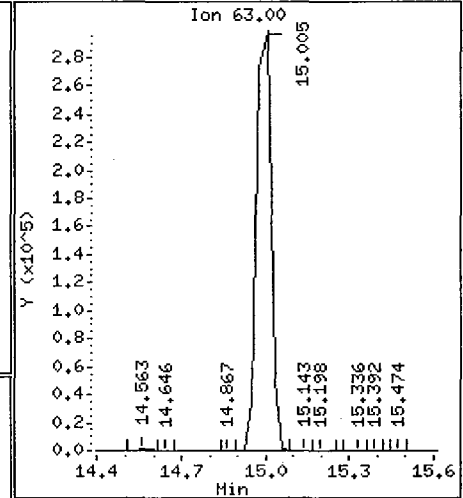
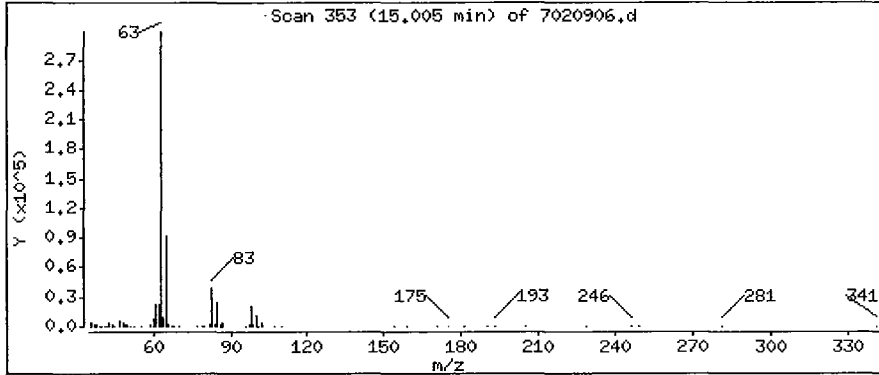
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

25 1,1-Dichloroethane

Concentration: 5.446 PPBV



0946

SCOEPA00032618

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

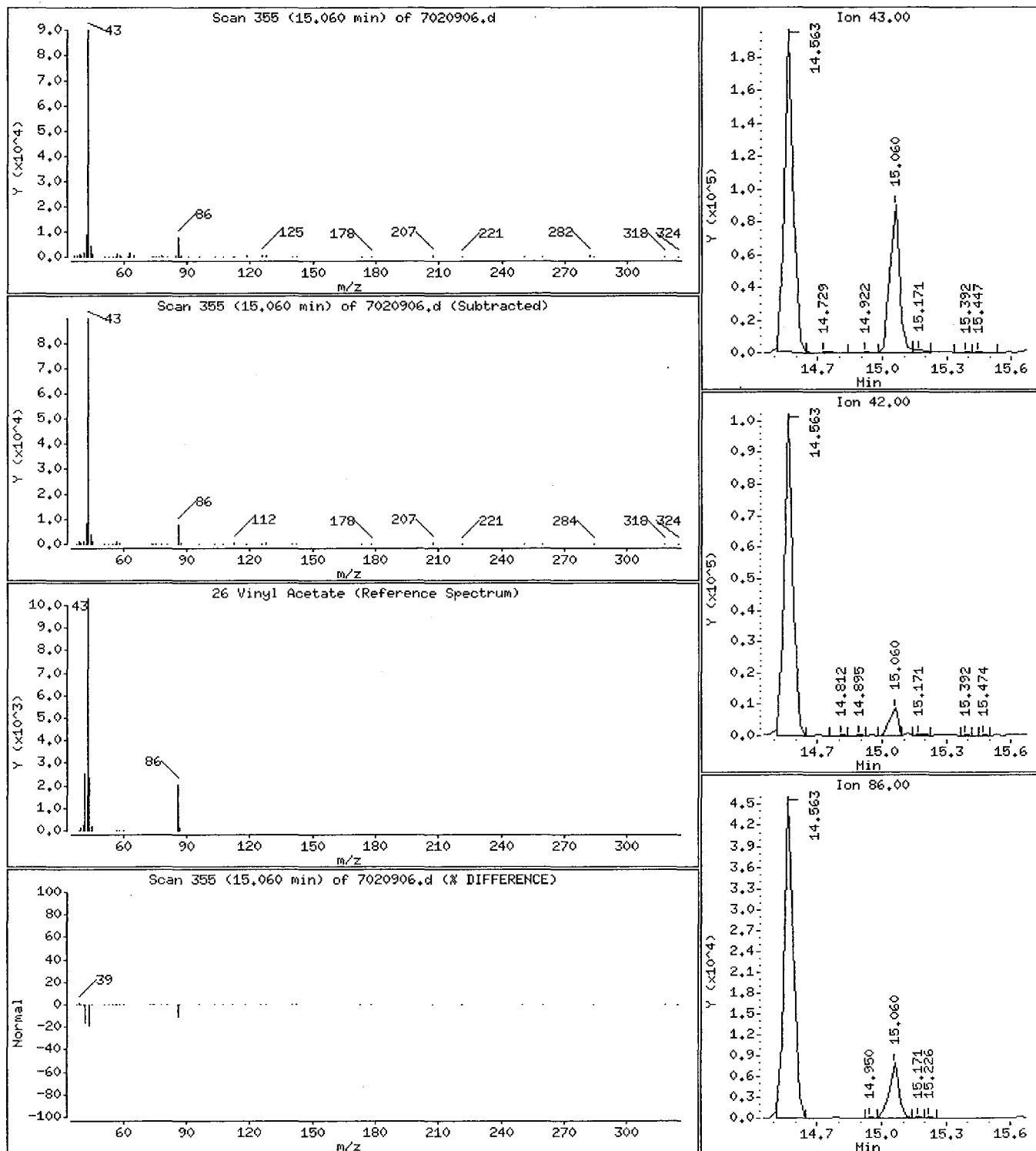
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

26 Vinyl Acetate

Concentration: 5.010 PPBV



0947

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

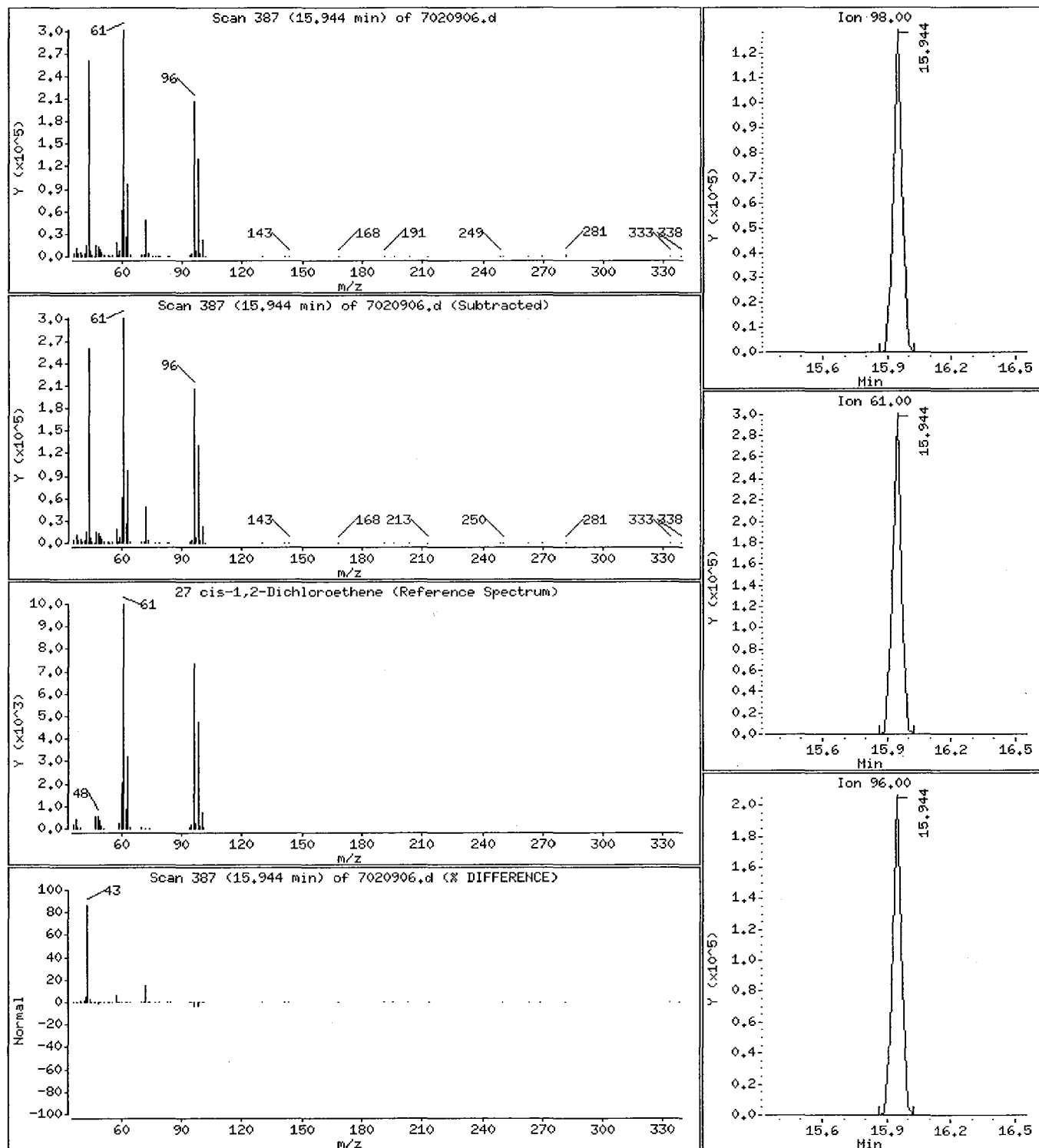
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

27 cis-1,2-Dichloroethene

Concentration: 5,278 PPBV



0948

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

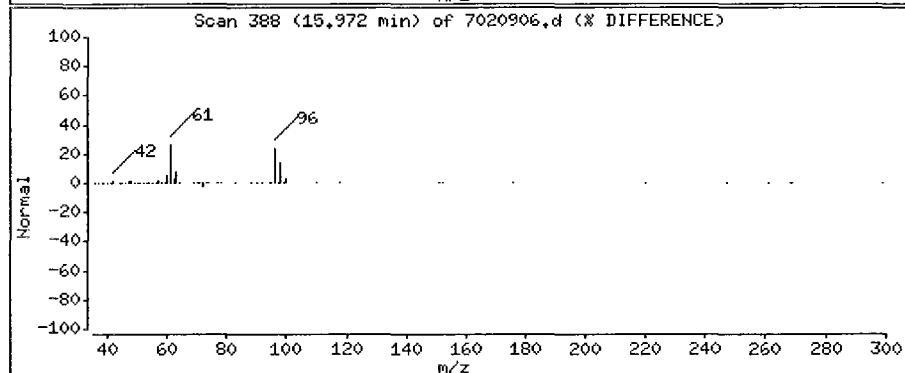
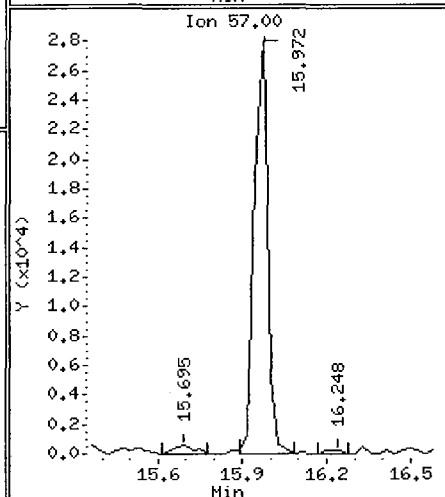
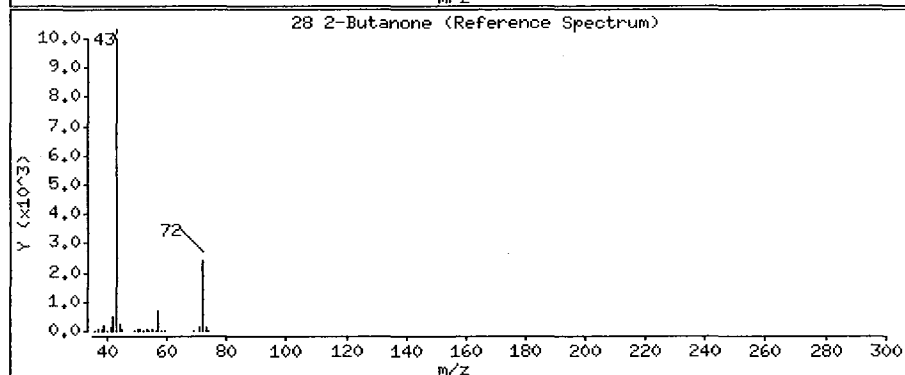
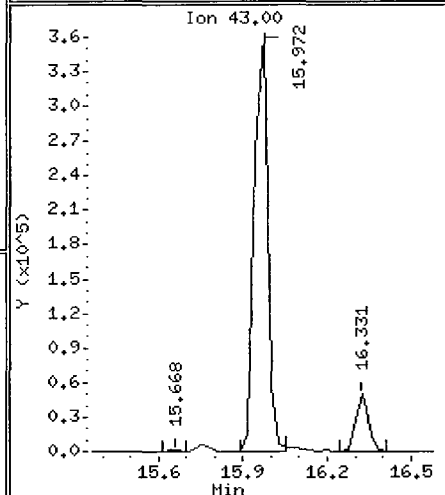
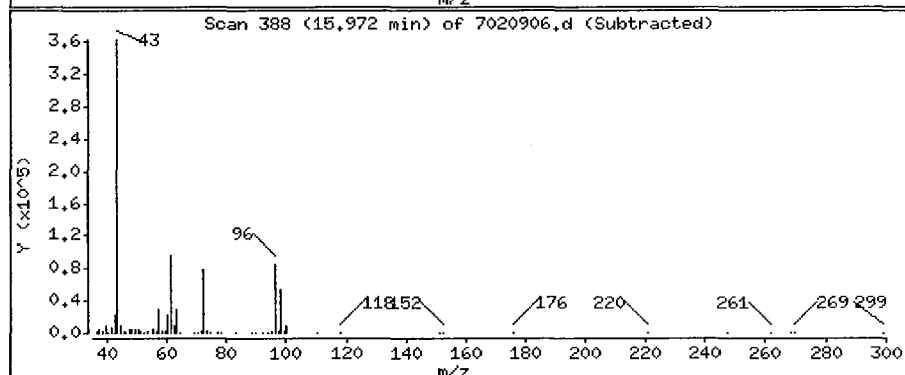
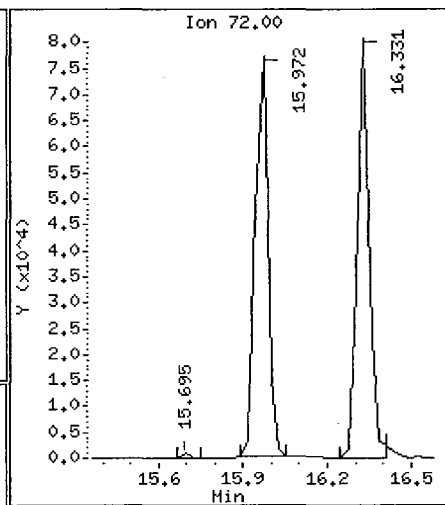
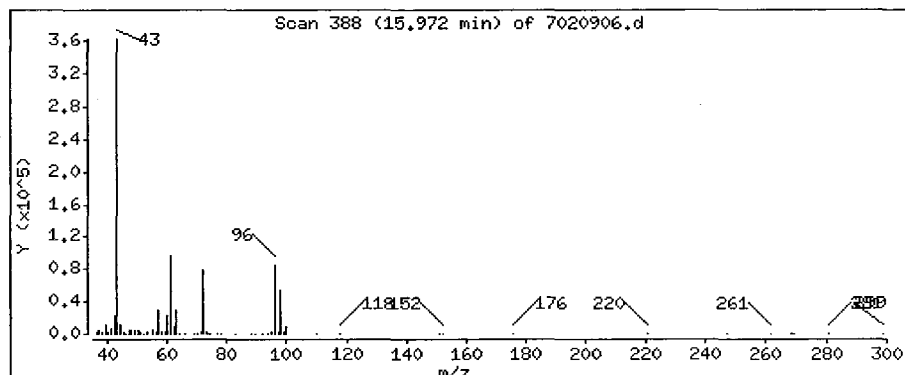
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

28 2-Butanone

Concentration: 4,688 PPBV



0949

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

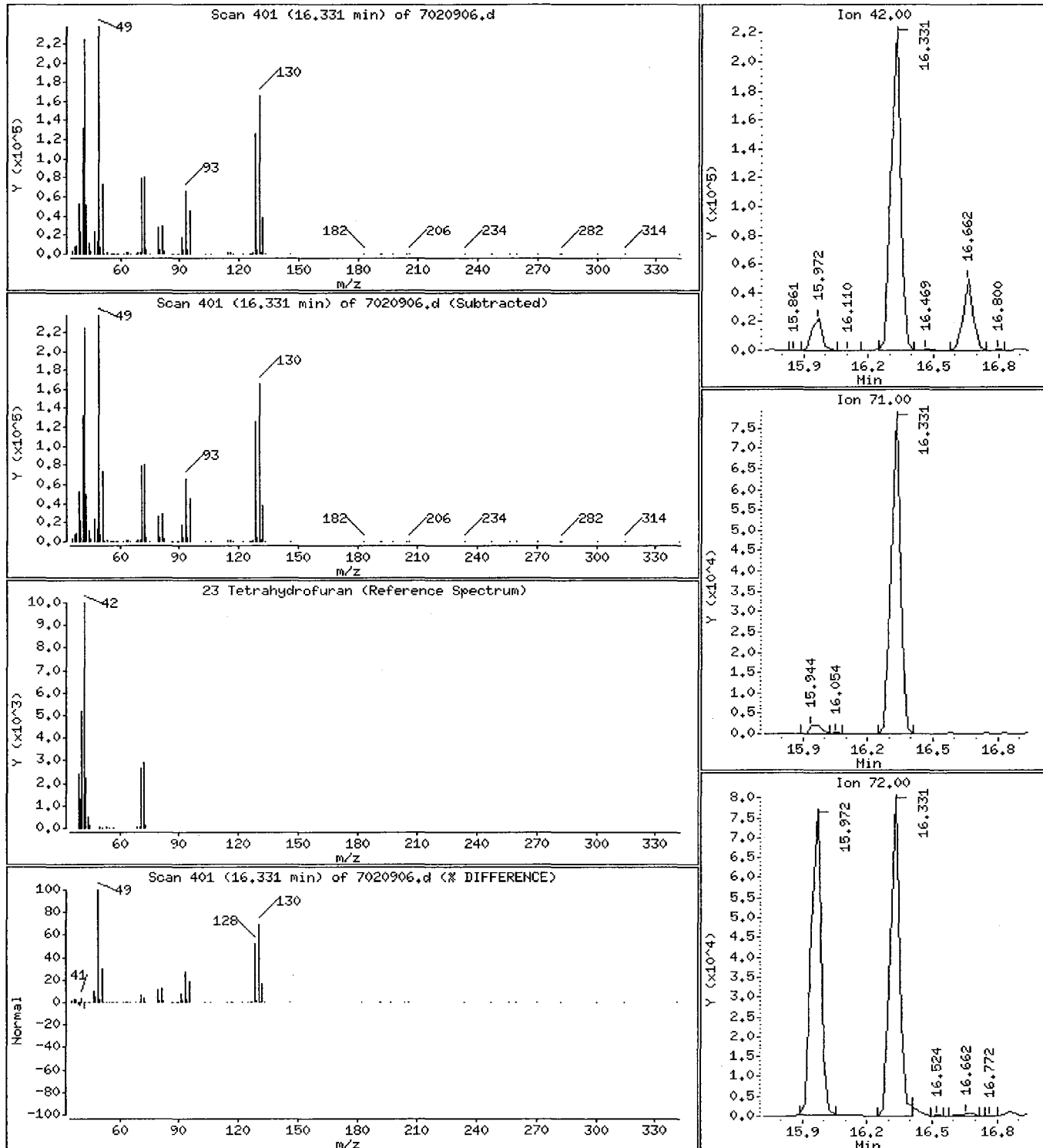
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

23 Tetrahydrofuran

Concentration: 4.742 PPBV



0950

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

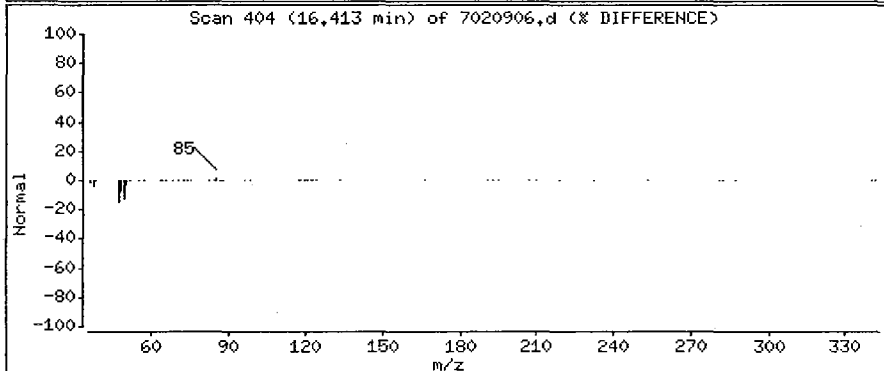
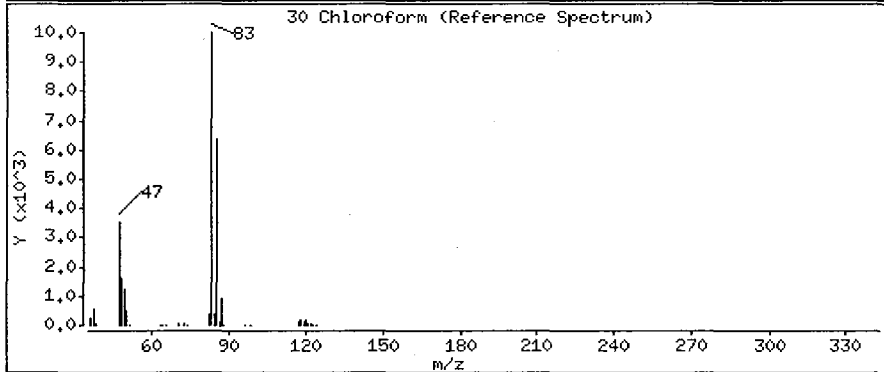
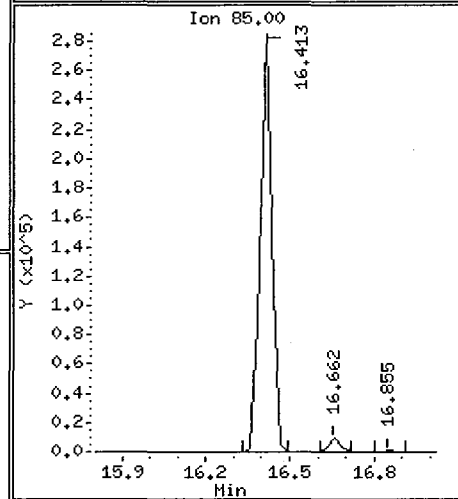
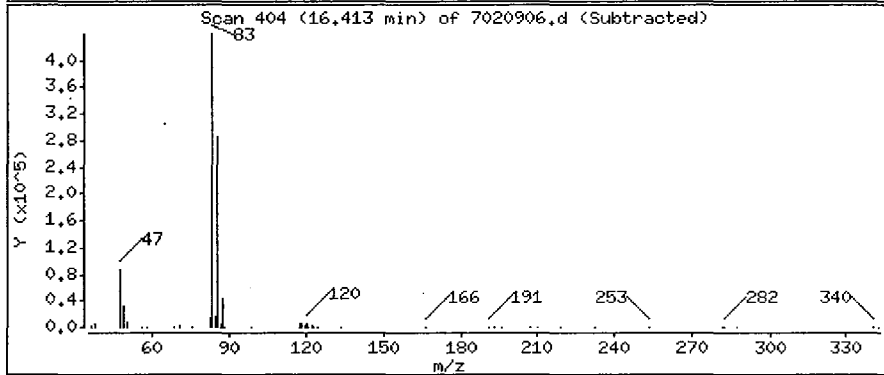
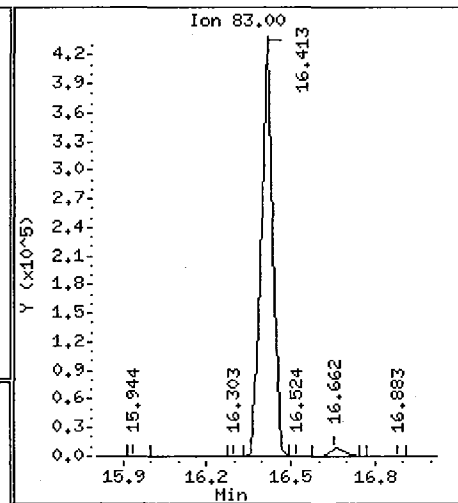
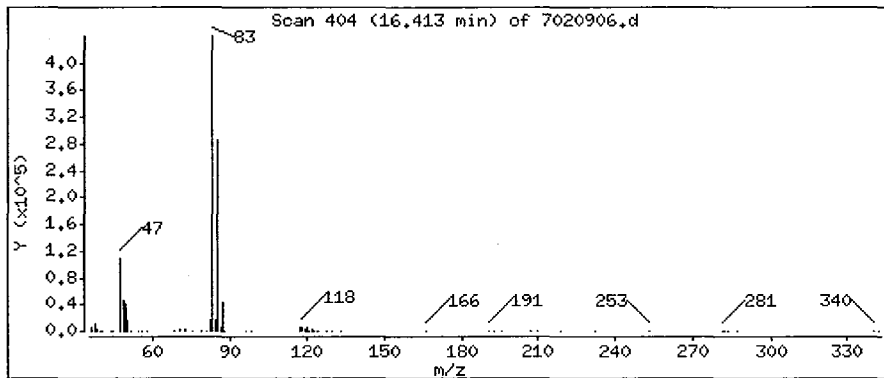
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

30 Chloroform

Concentration: 5.576 PPBV



0951

SCOEPAA00032623

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

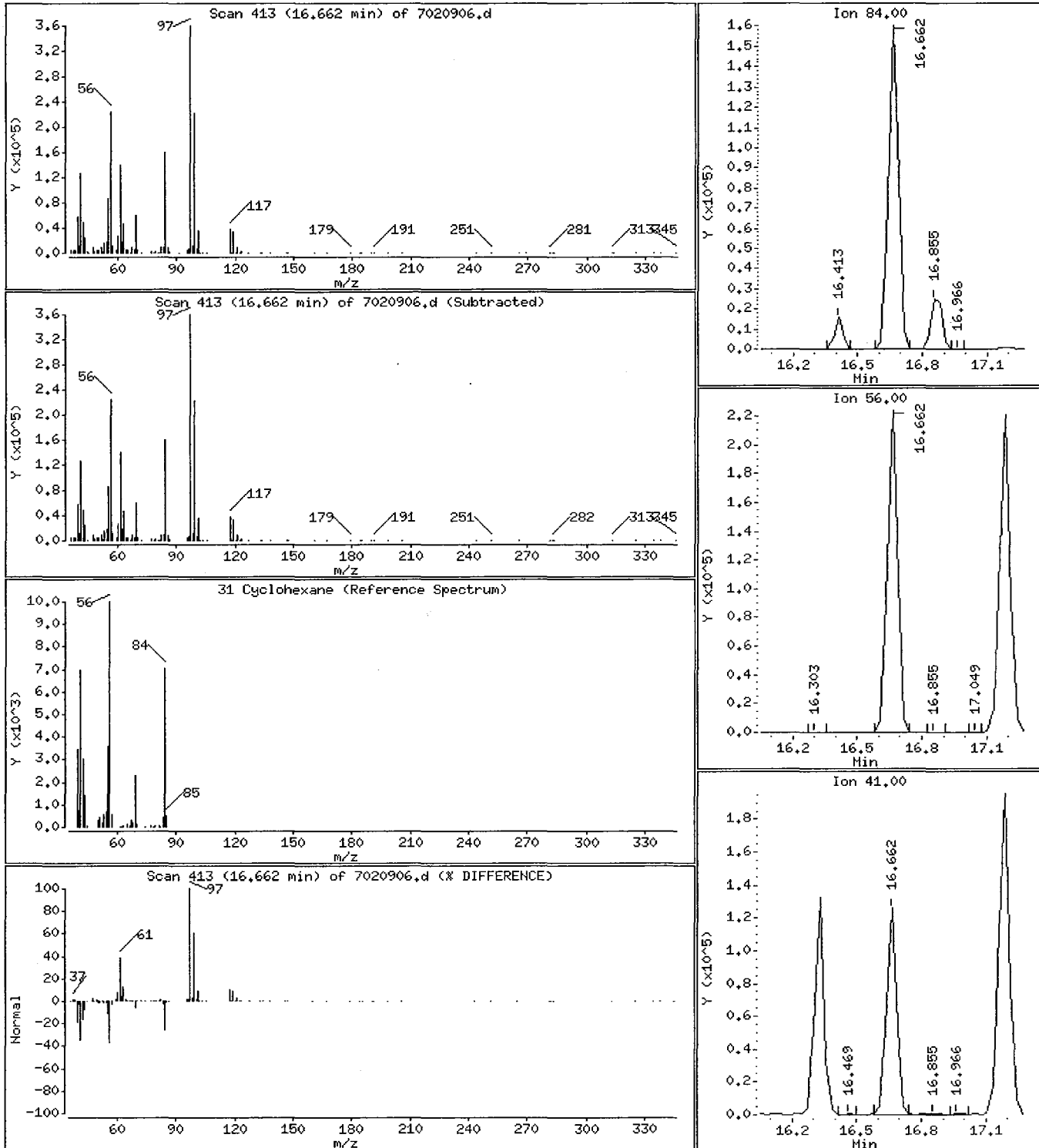
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

31 Cyclohexane

Concentration: 5.031 PPBV



0952

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

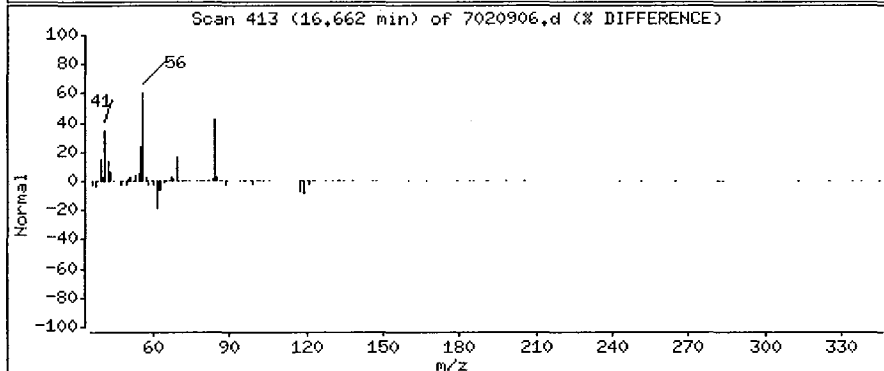
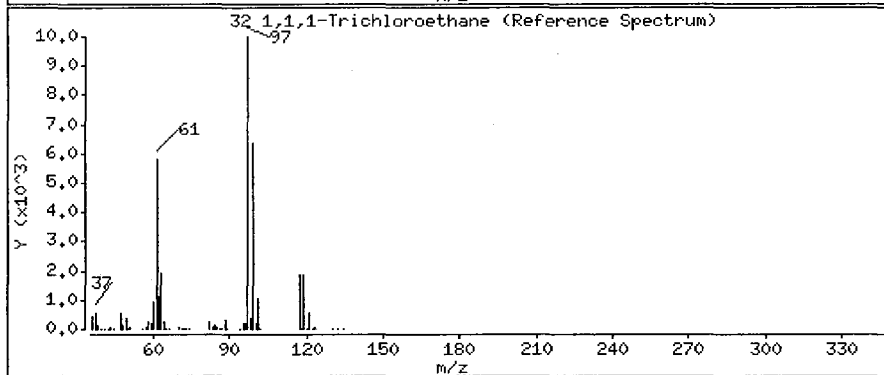
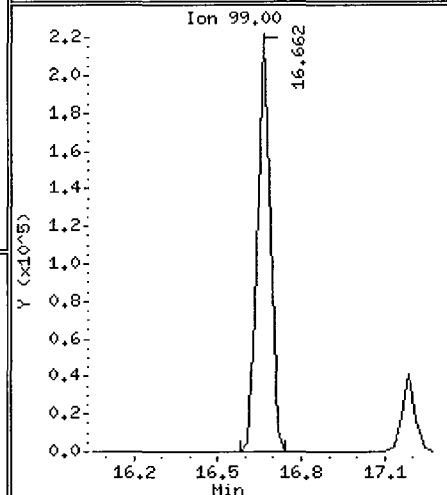
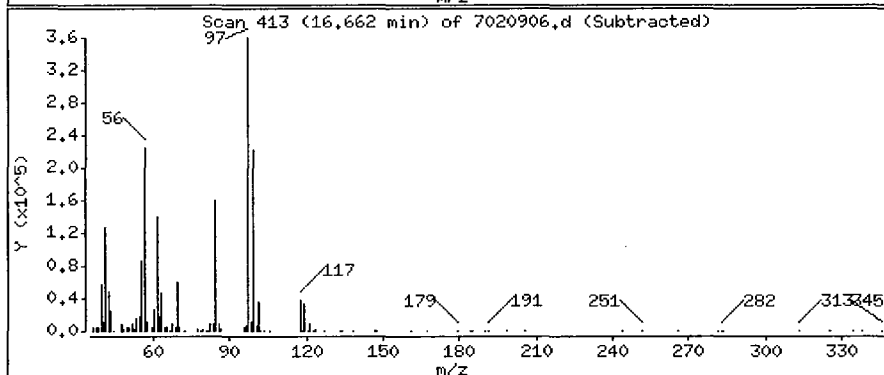
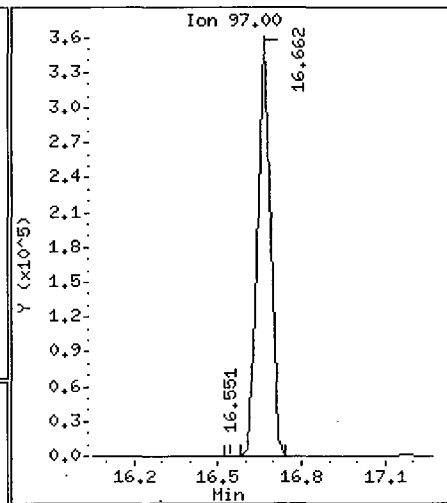
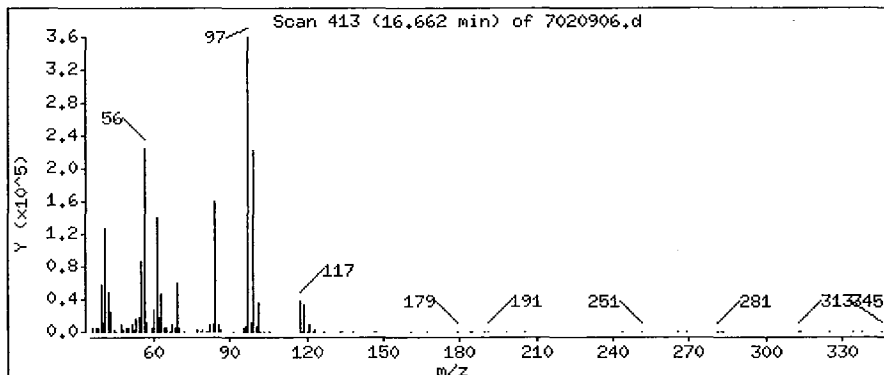
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

32 1,1,1-Trichloroethane

Concentration: 6.272 PPBV



0953

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

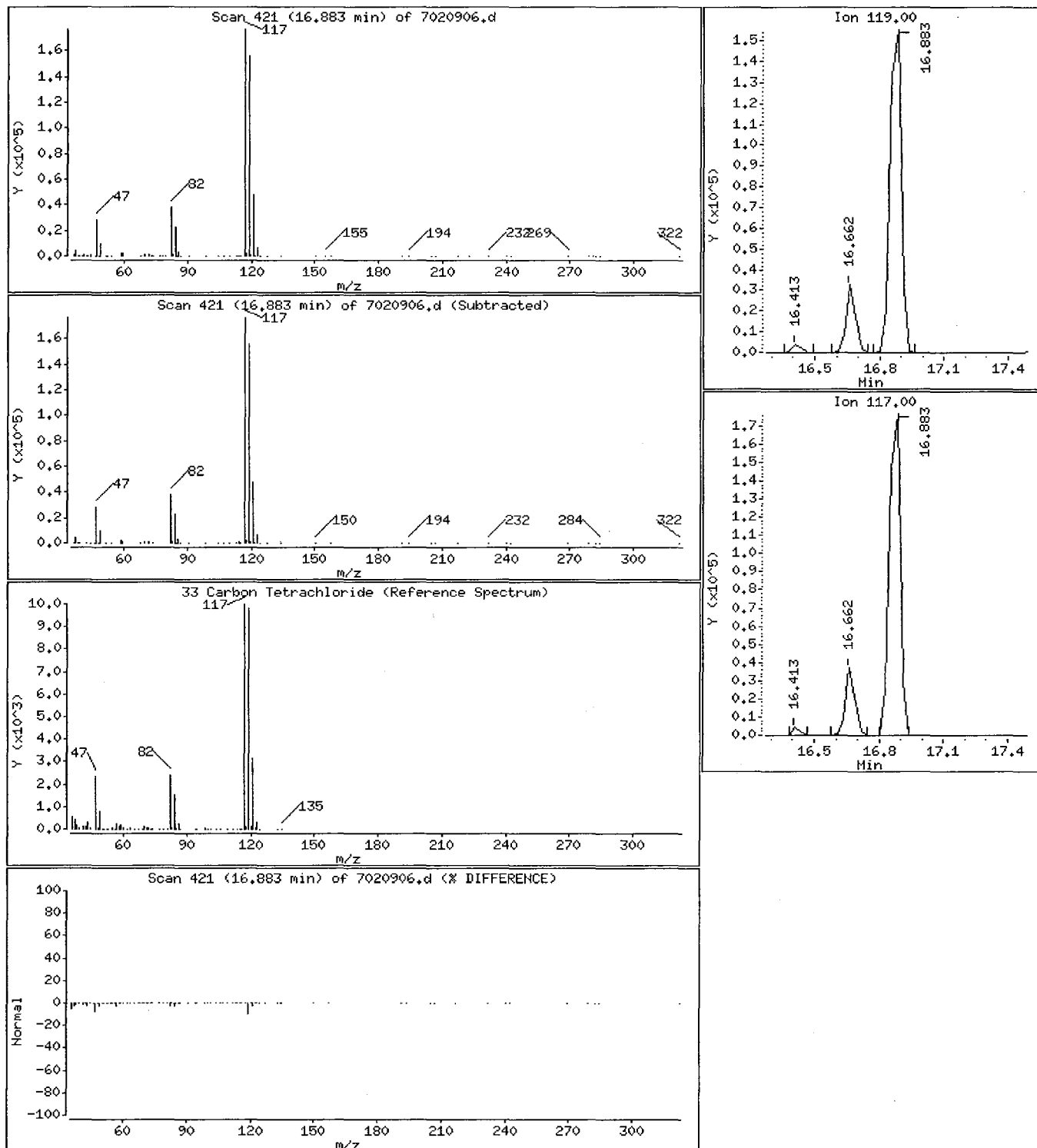
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

33 Carbon Tetrachloride

Concentration: 3.364 PPBV



0954

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

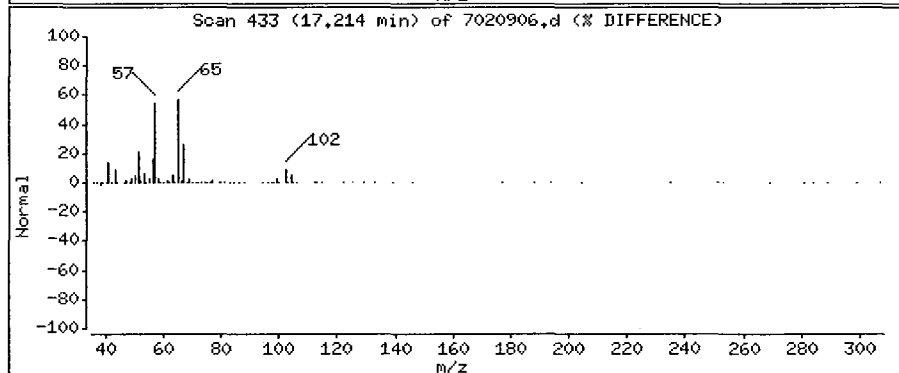
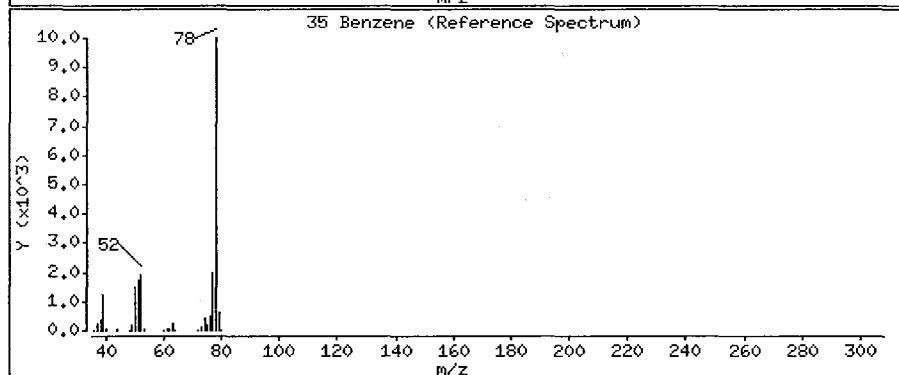
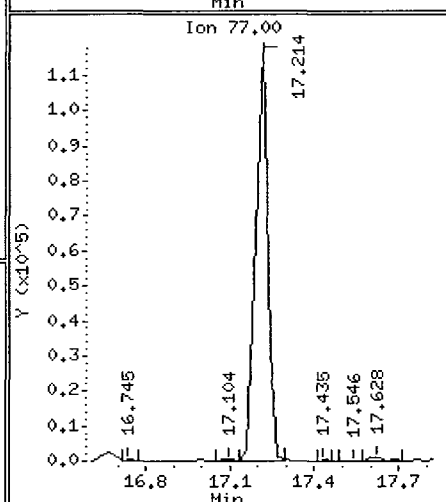
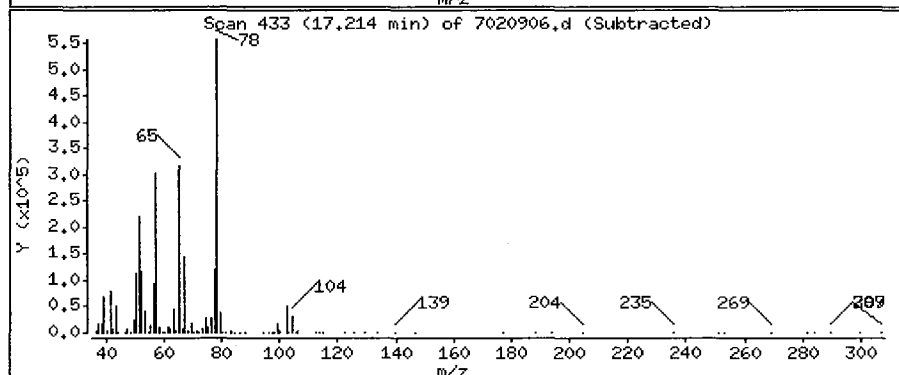
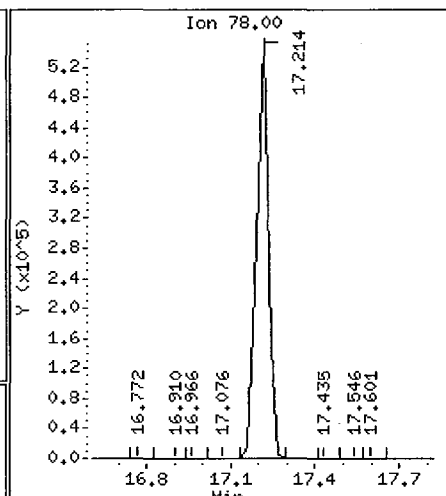
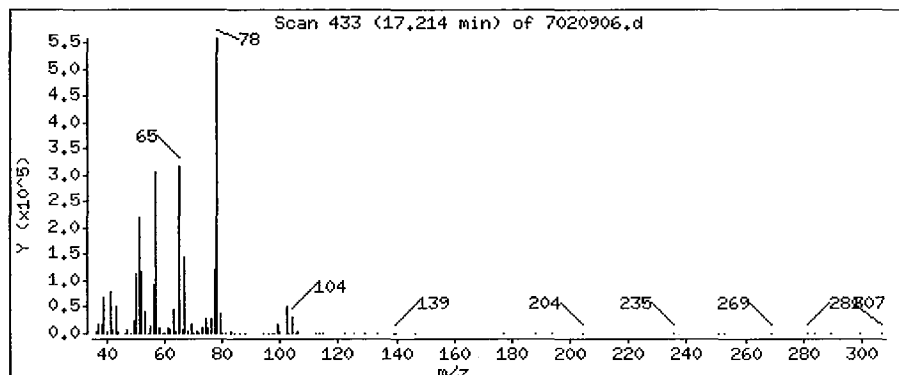
Operator: WW

Column phase: RTx-624

Column diameter: 0.32

35 Benzene

Concentration: 5,076 PPBV



0955

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

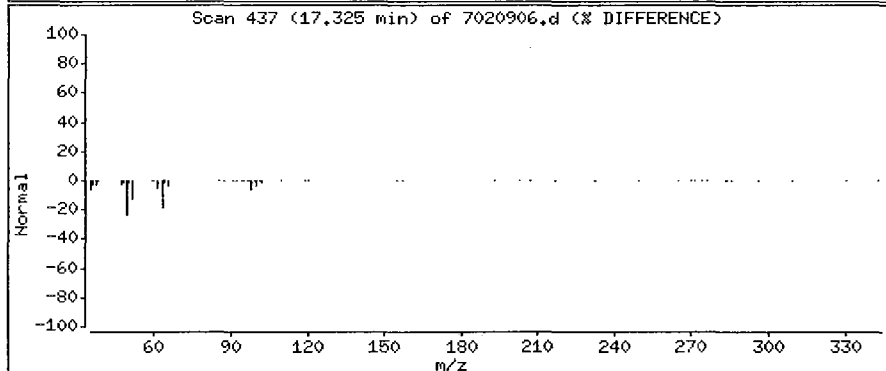
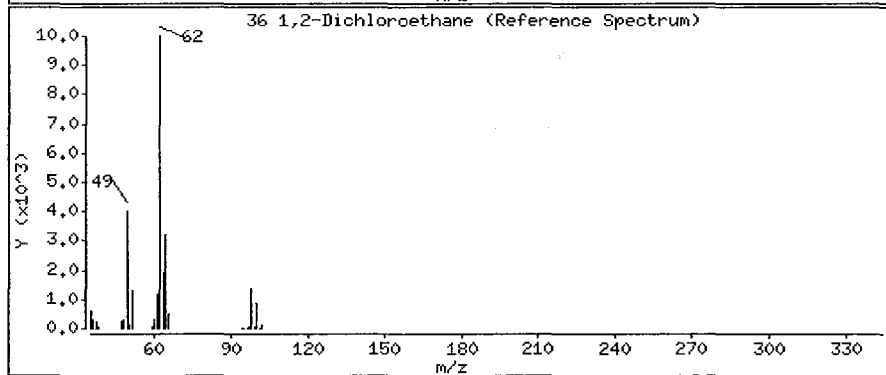
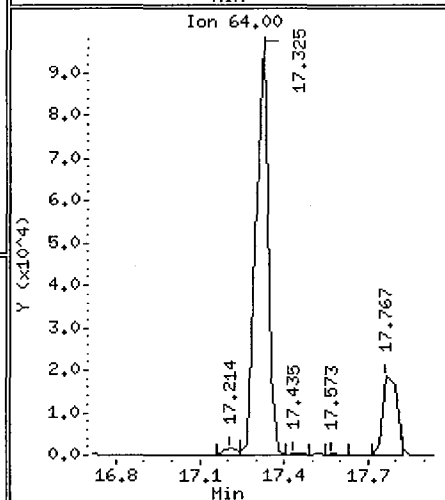
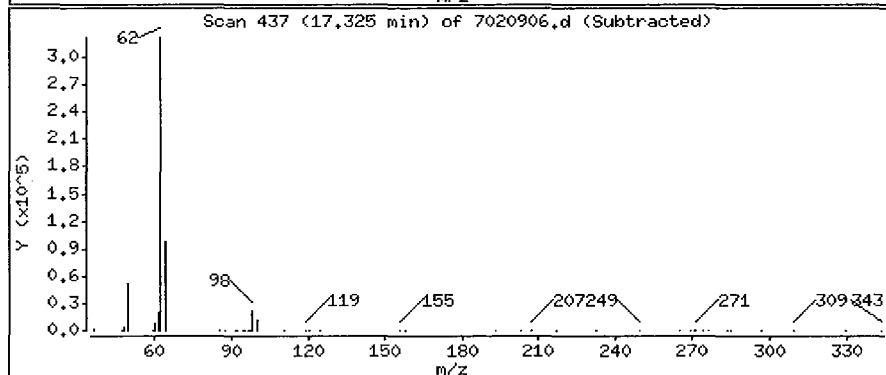
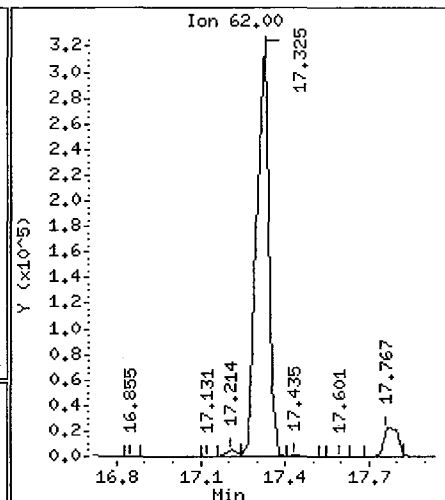
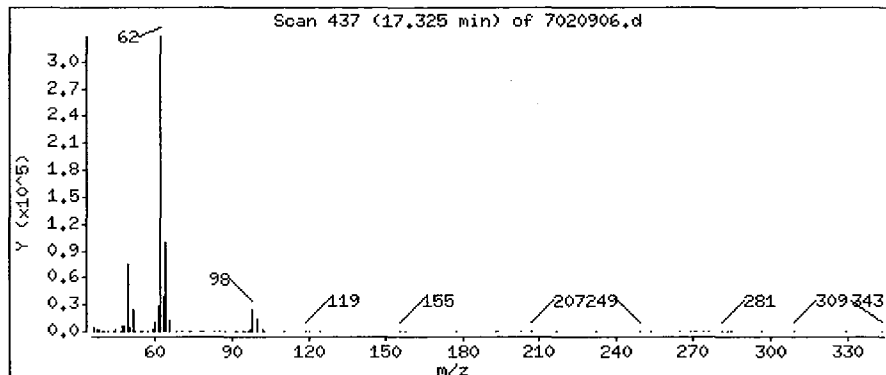
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

36 1,2-Dichloroethane

Concentration: 6,183 PPBV



0956

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

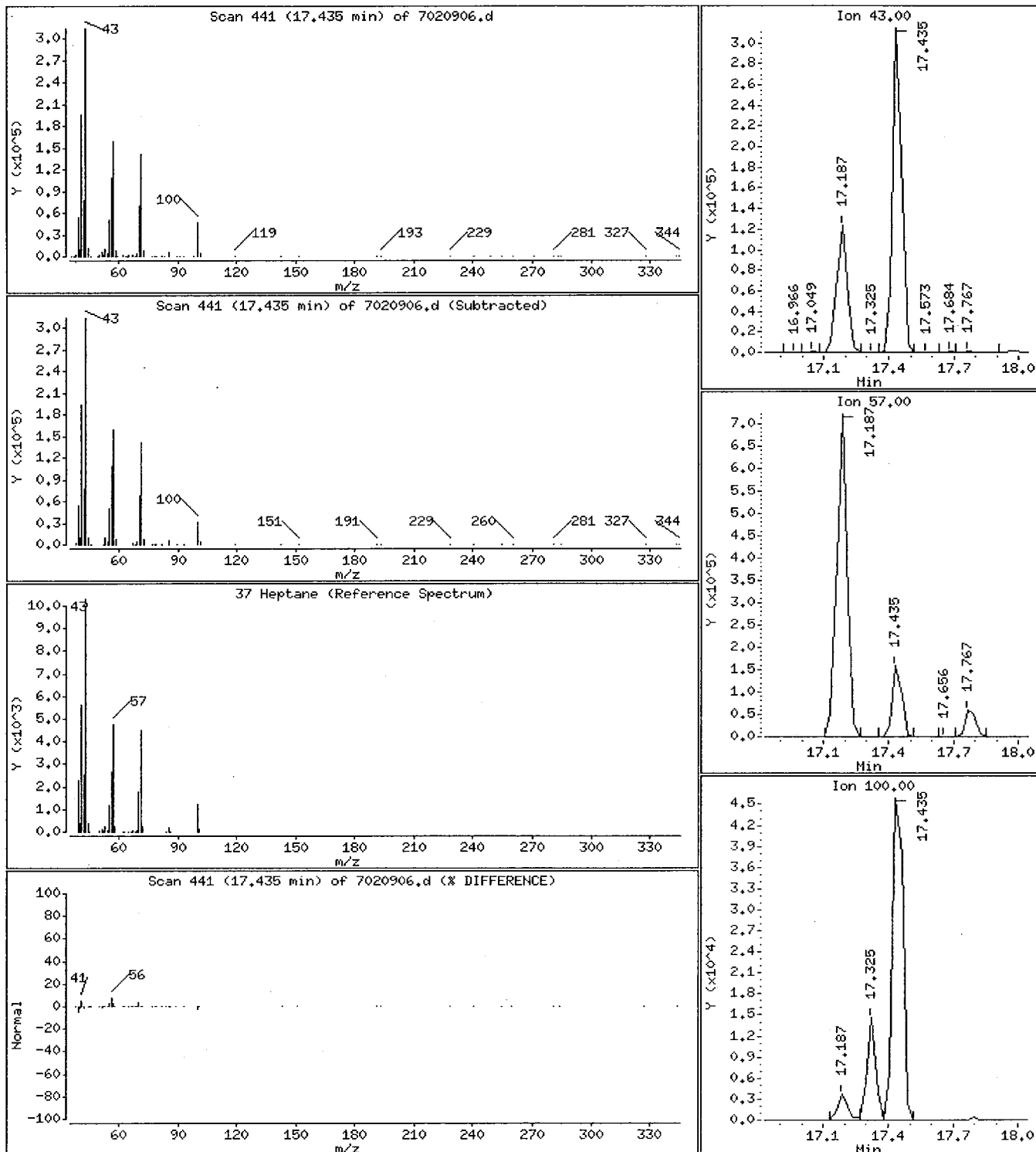
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

37 Heptane

Concentration: 4,902 PPBV



0957

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

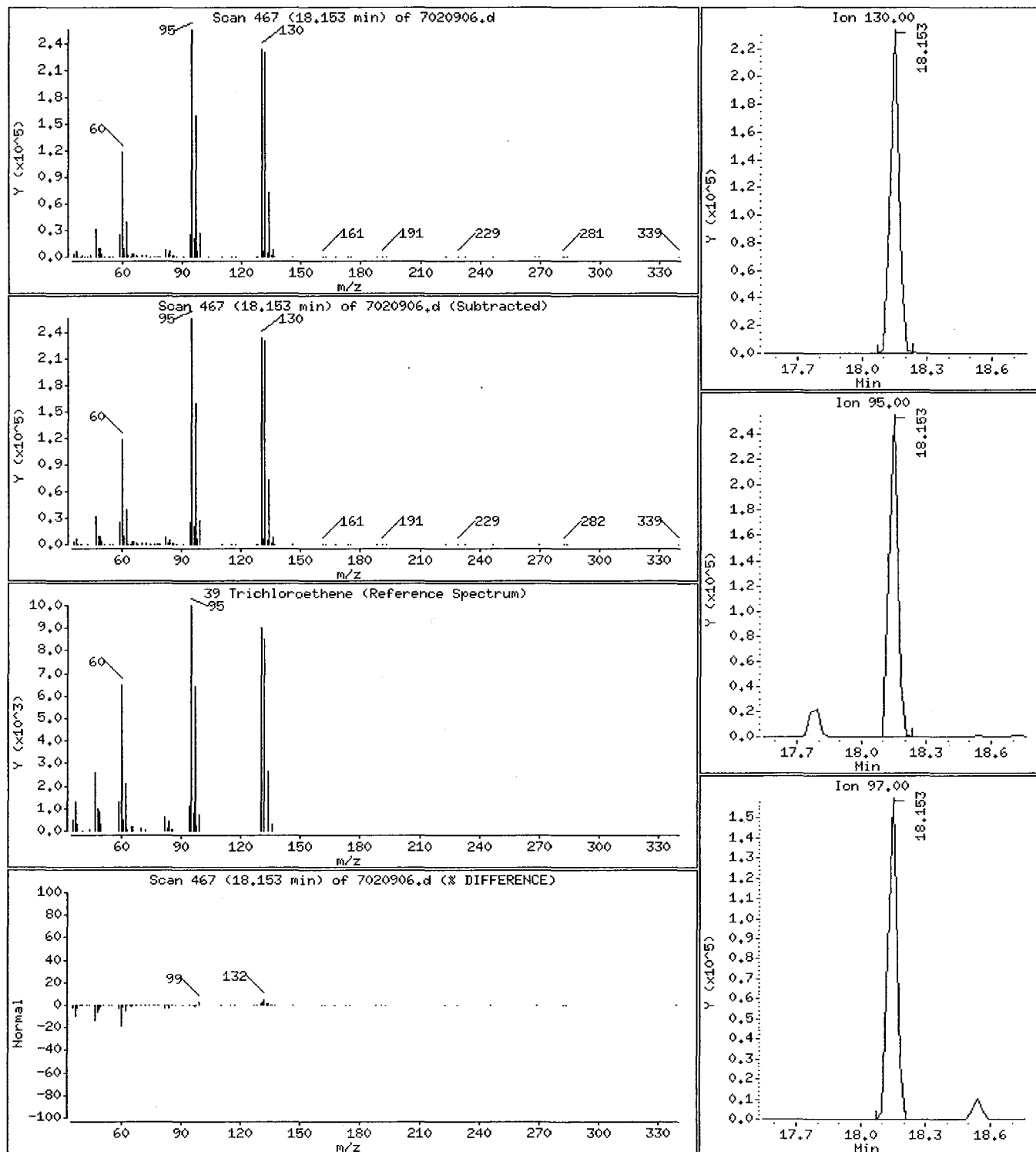
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

39 Trichloroethene

Concentration: 5,940 PPBV



0958

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

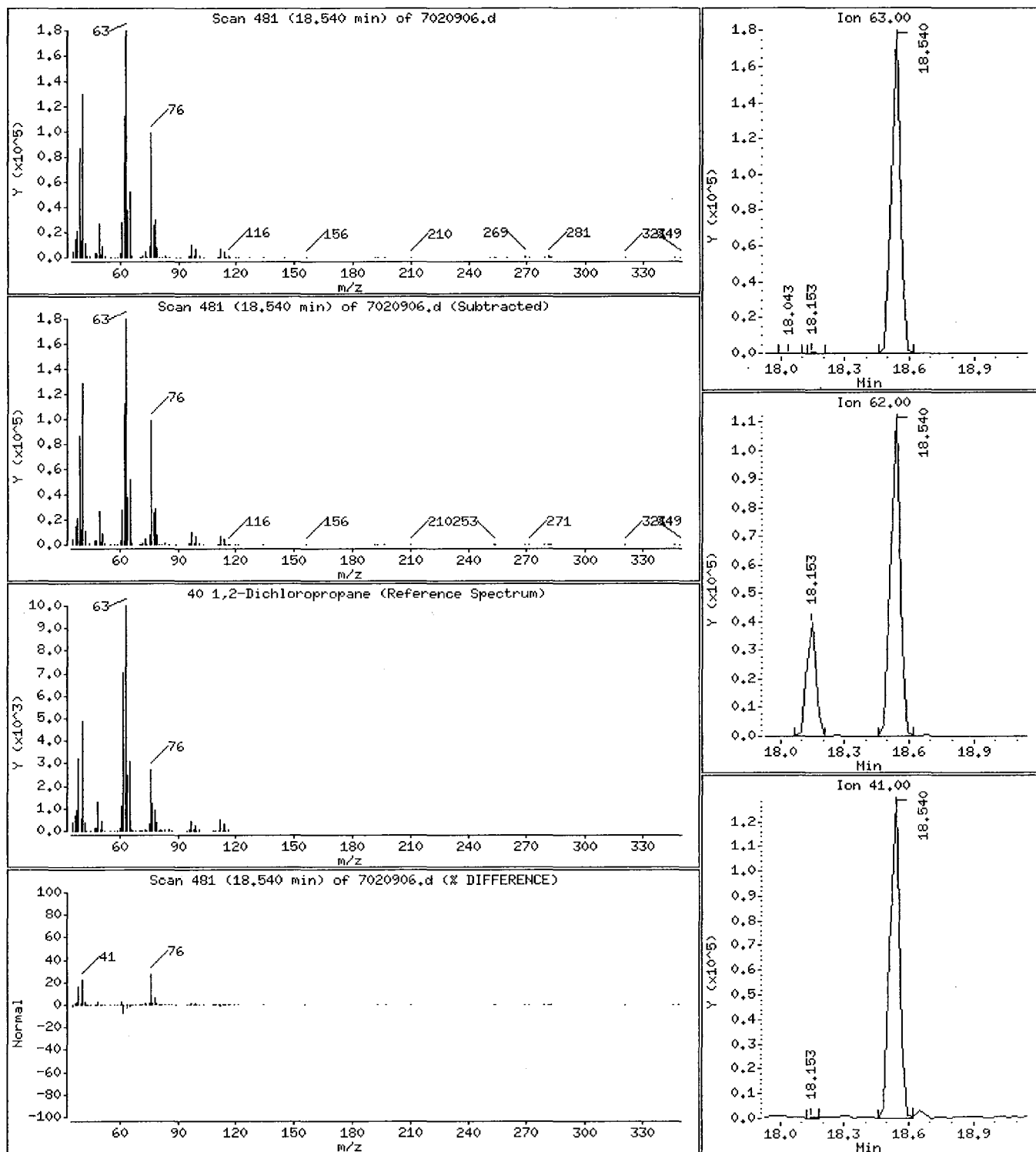
Operator: MN

Column phase: RTX-624

Column diameter: 0.32

40 1,2-Dichloropropane

Concentration: 5.613 PPBV



0959

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

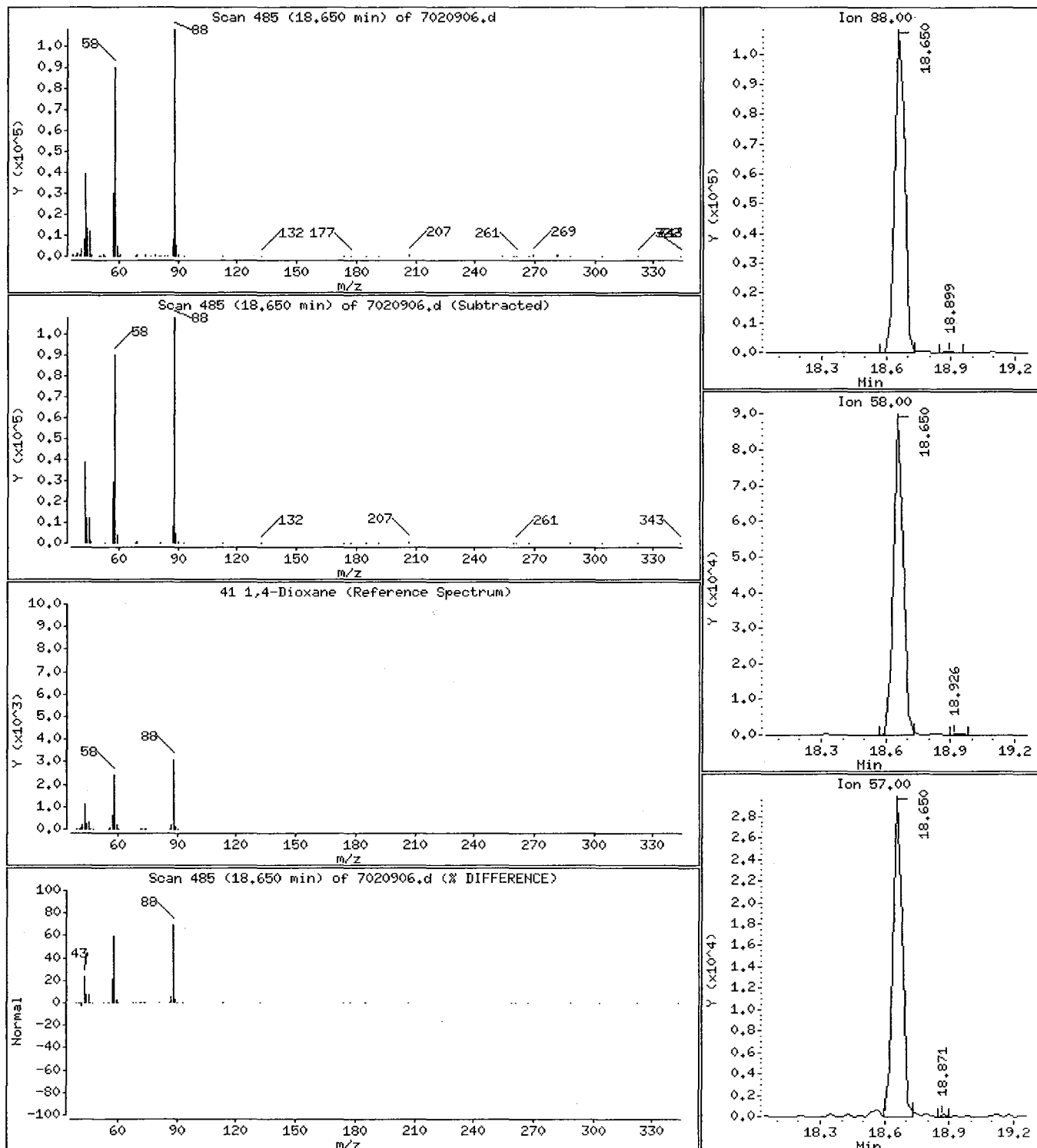
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

41 1,4-Dioxane

Concentration: 5,460 PPBV



0960

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

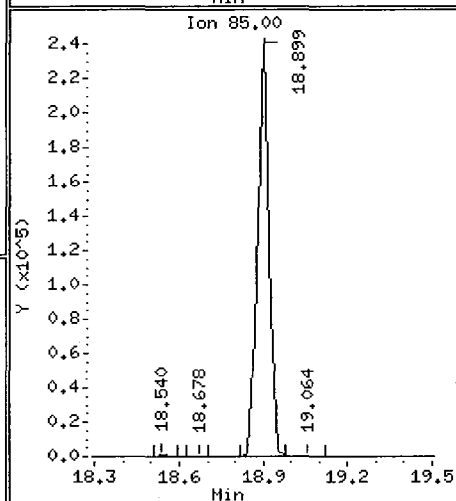
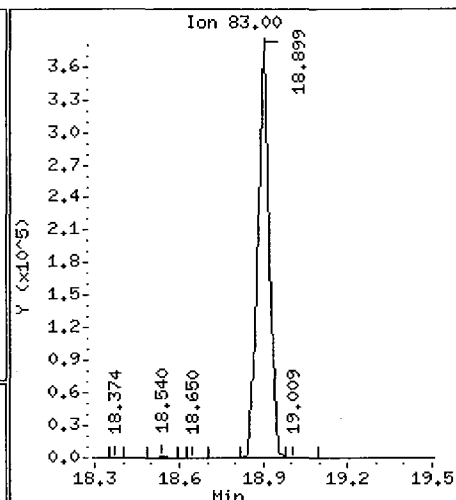
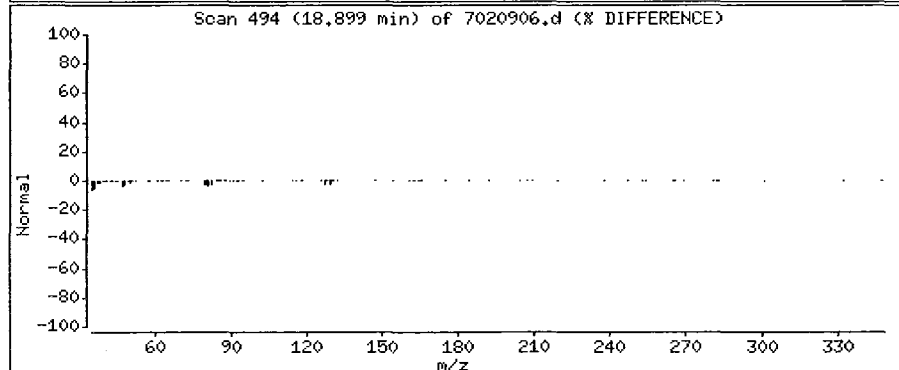
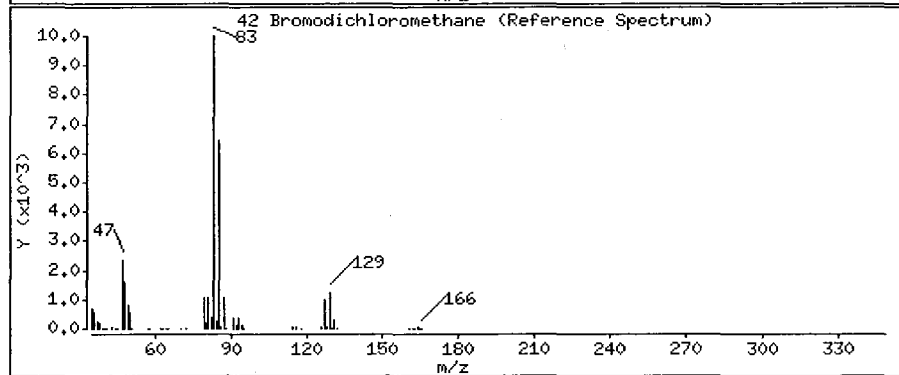
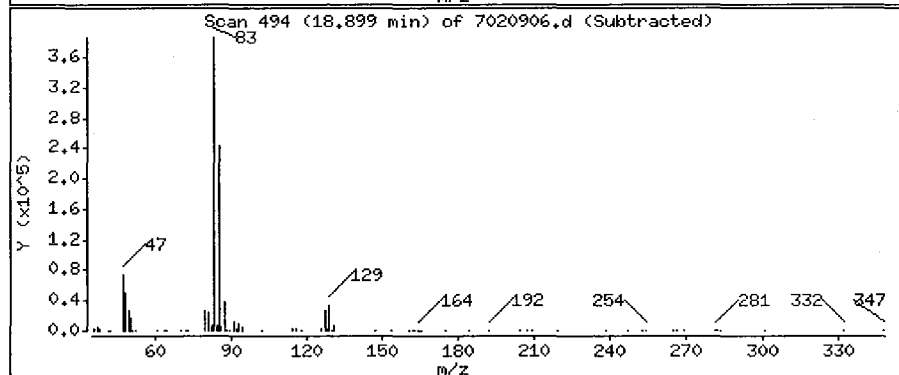
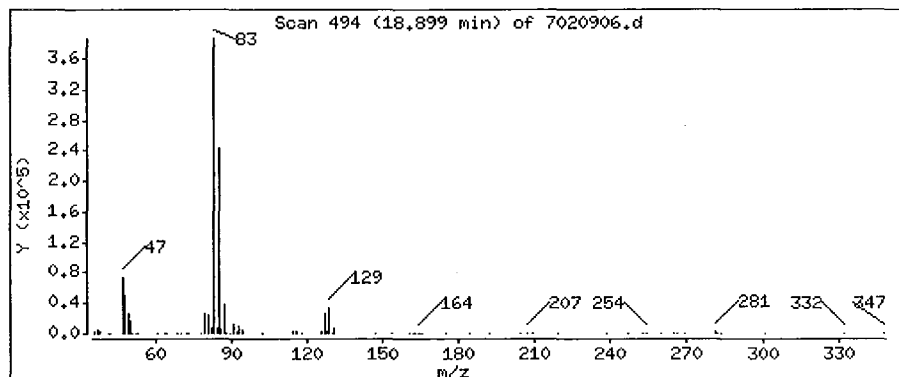
Operator: MW

Column phase: RTx-624

Column diameter: 0.32

42 Bromodichloromethane

Concentration: 5.196 PPBV



0961

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

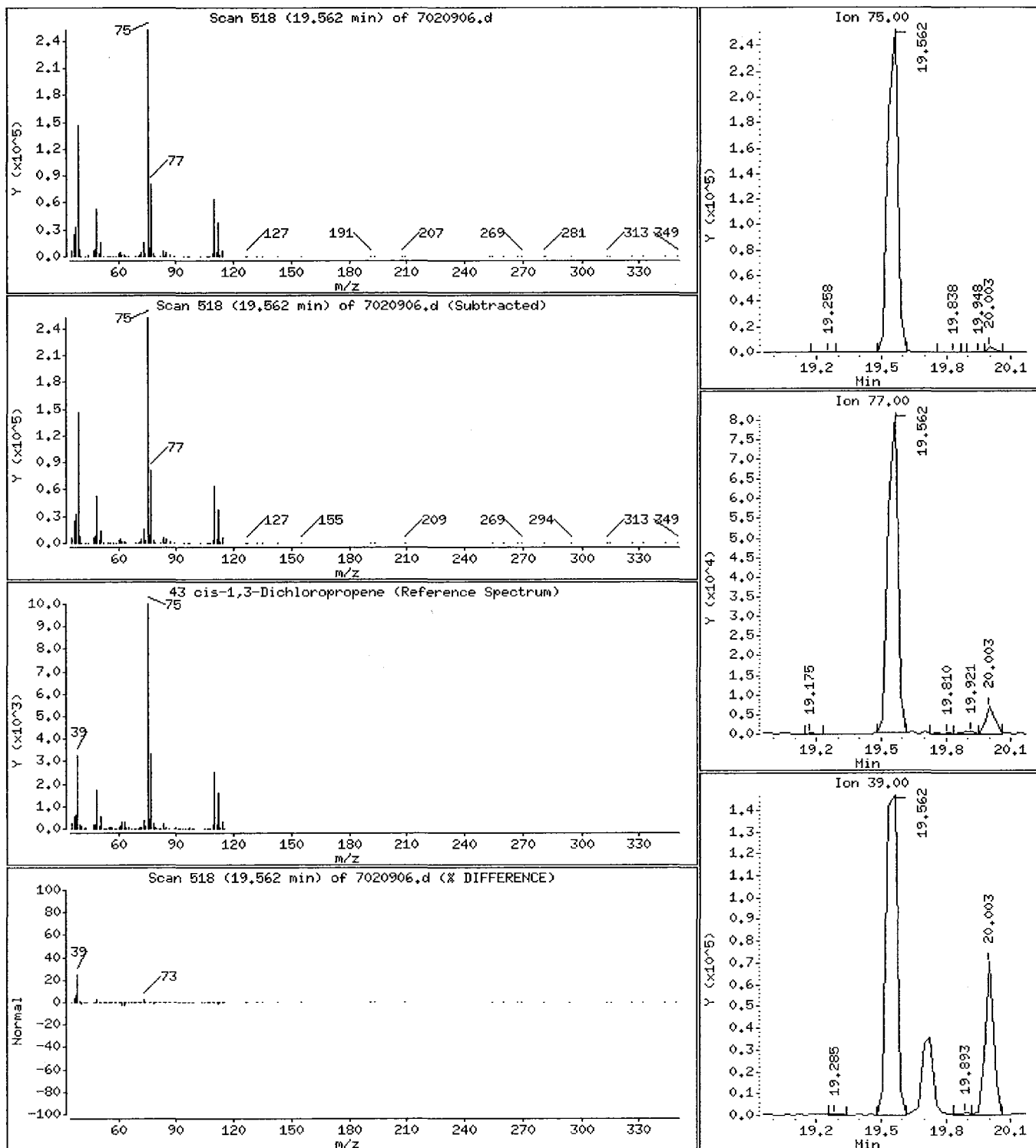
Operator: MM

Column phase: RTX-624

Column diameter: 0,32

43 cis-1,3-Dichloropropene

Concentration: 5,853 PPBV



0962

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

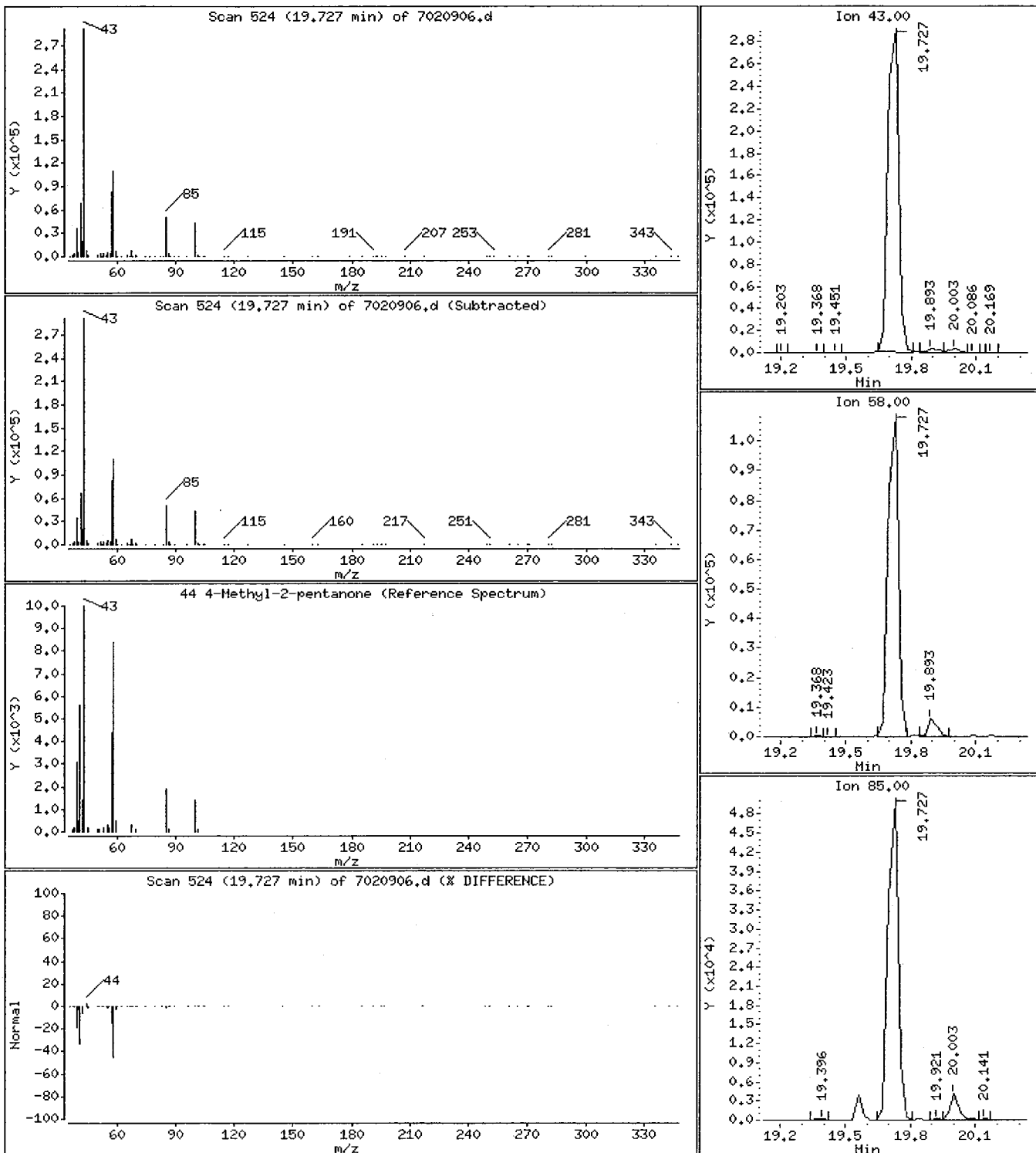
Operator: MM

Column phase: RTX-624

Column diameter: 0,32

44 4-Methyl-2-pentanone

Concentration: 4,909 PPBV



Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

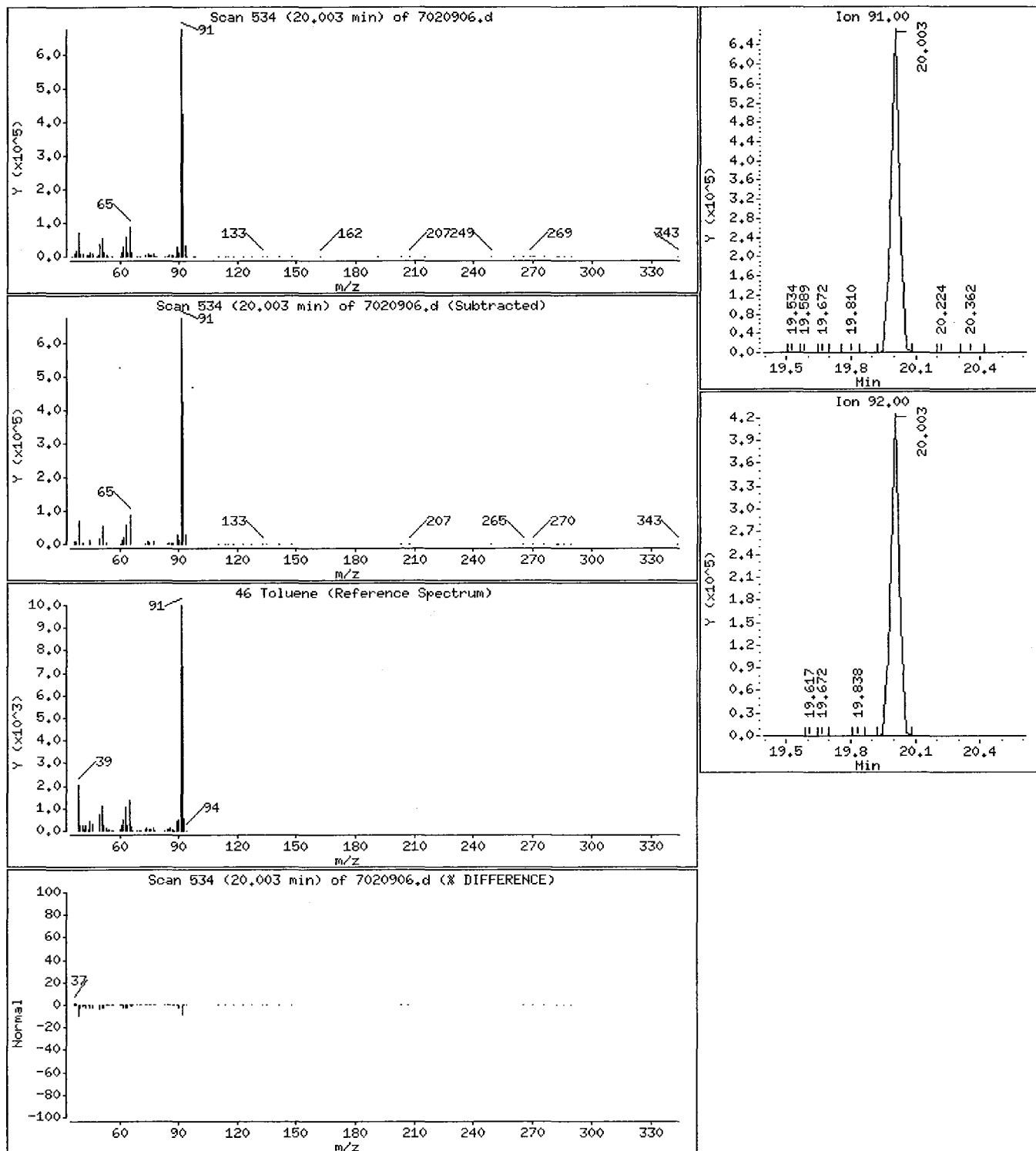
Operator: MN

Column phase: RTX-624

Column diameter: 0.32

46 Toluene

Concentration: 5.007 PPBV



0964

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

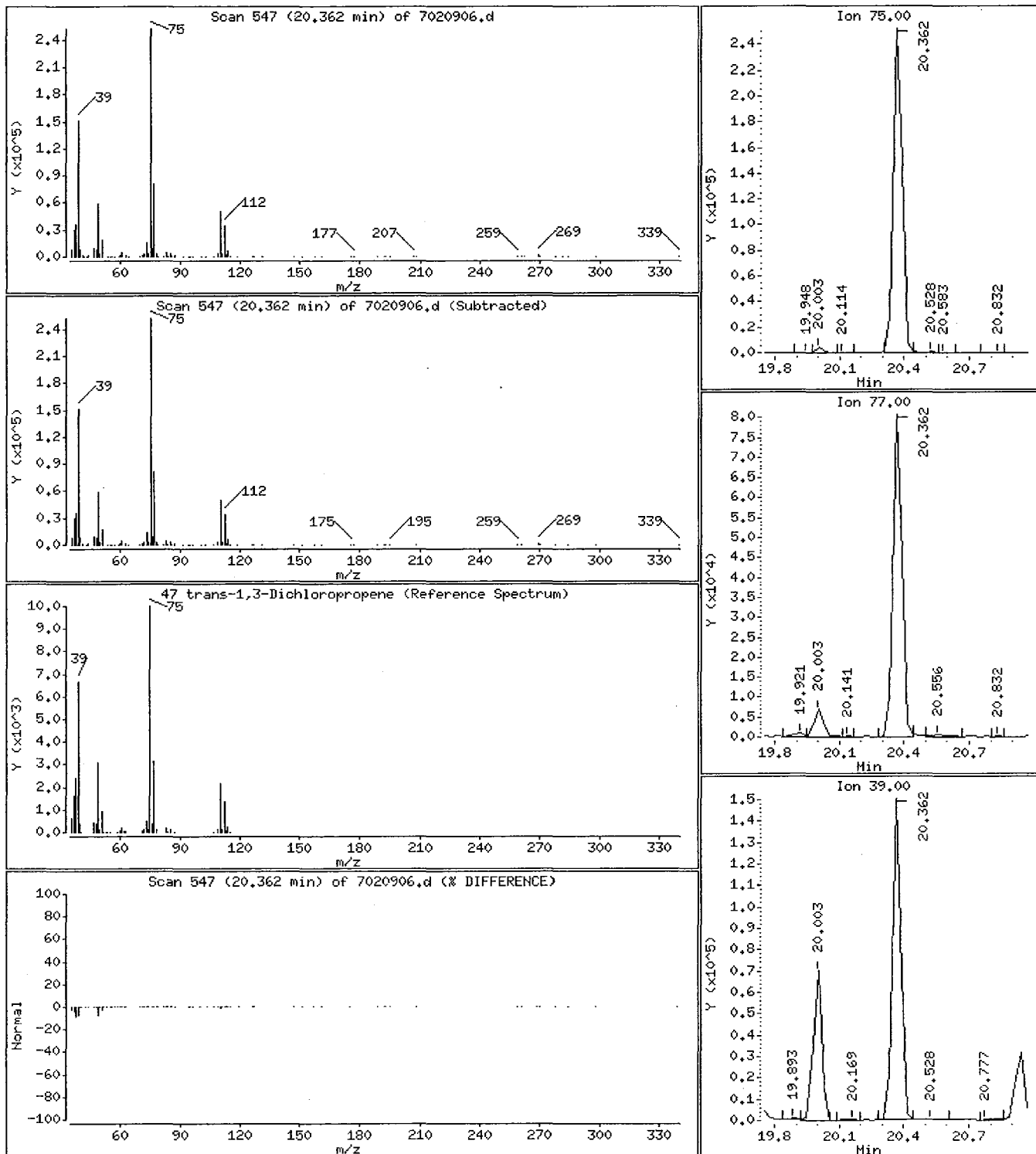
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

47 trans-1,3-Dichloropropene

Concentration: 5,610 PPBV



0965

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

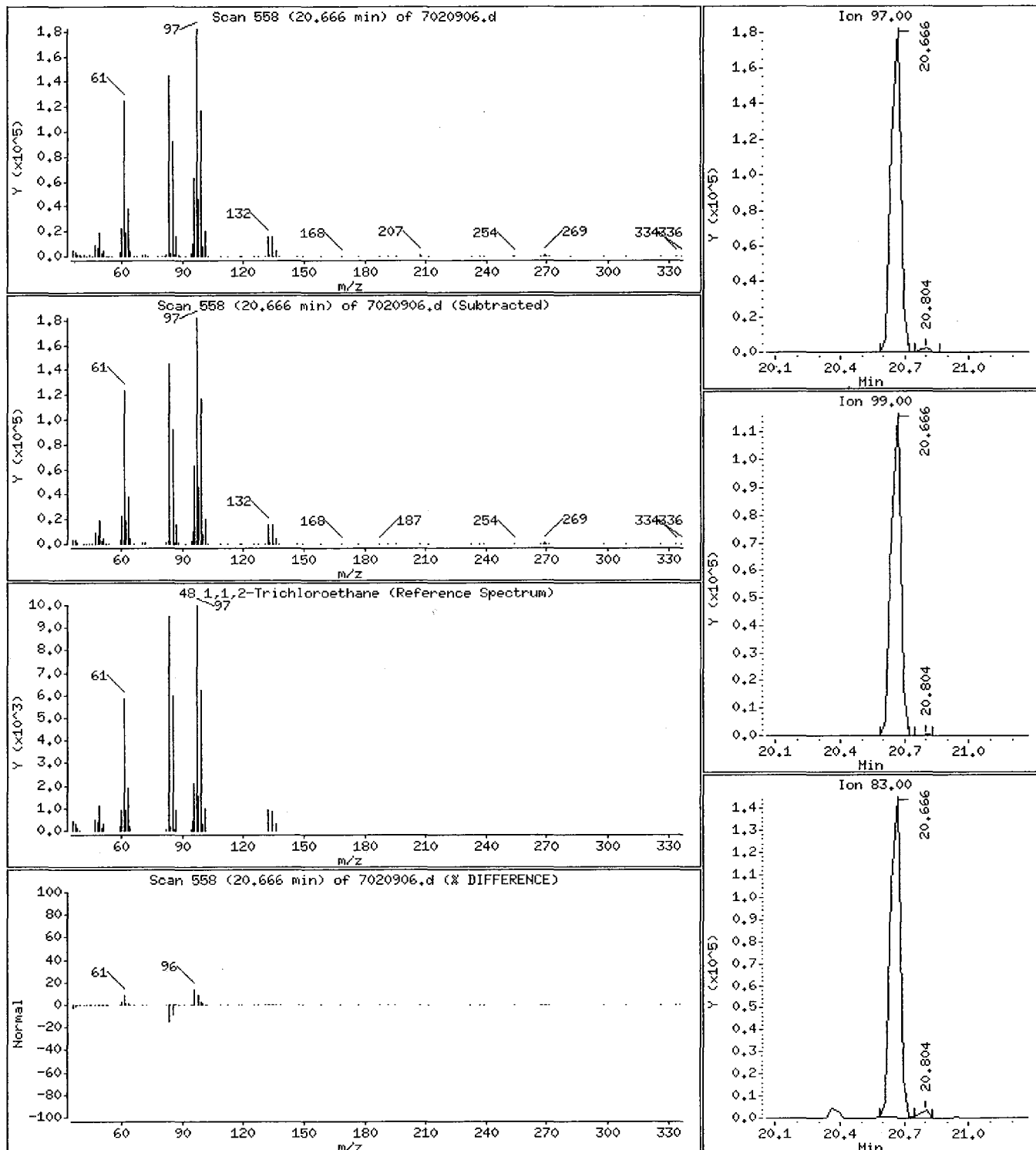
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

48 1,1,2-Trichloroethane

Concentration: 5,524 PPBV



0966

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

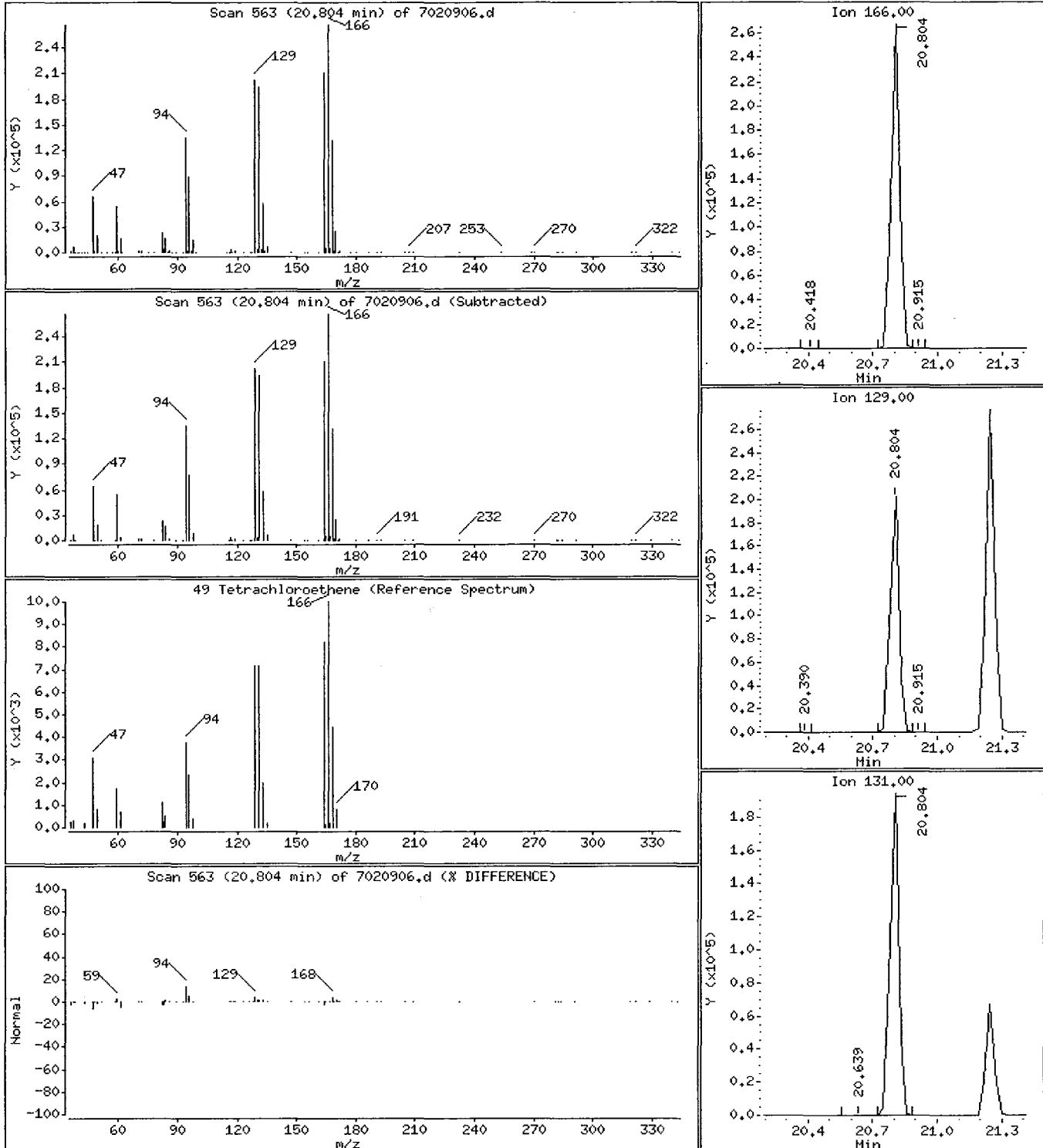
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

49 Tetrachloroethene

Concentration: 5.519 PPBV



0967

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

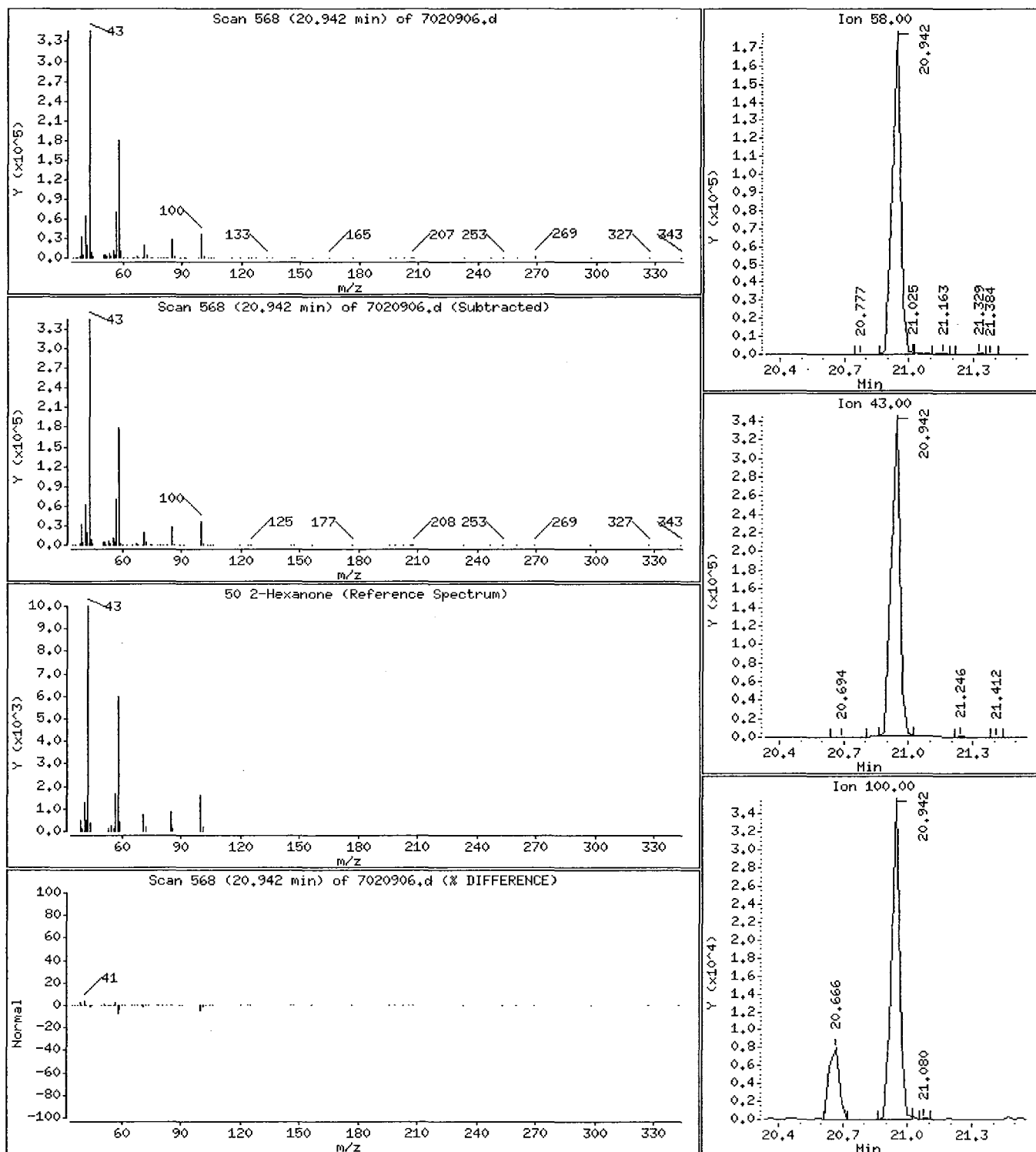
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

50 2-Hexanone

Concentration: 4.776 PPBV



0968

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

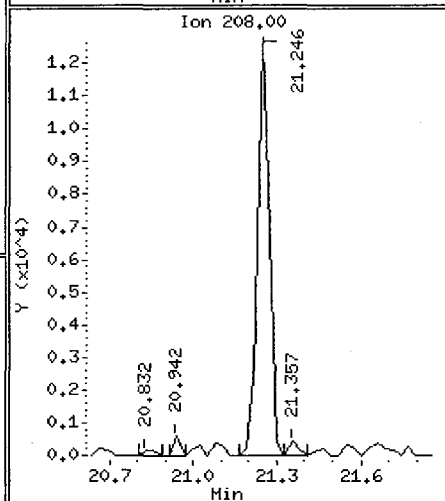
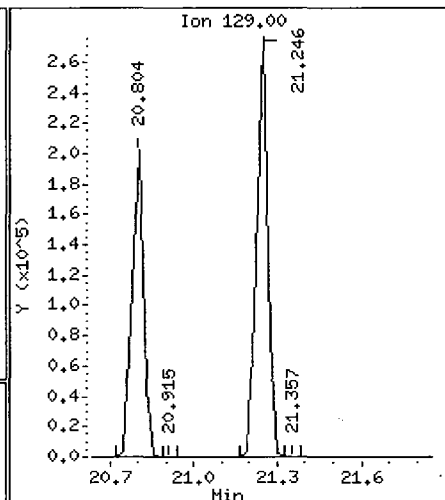
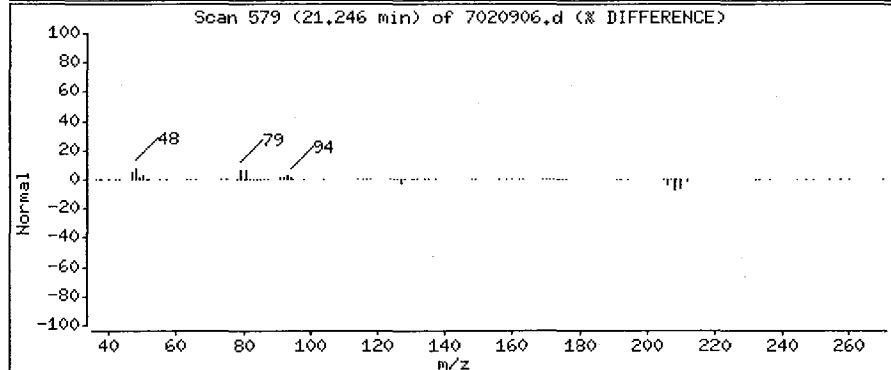
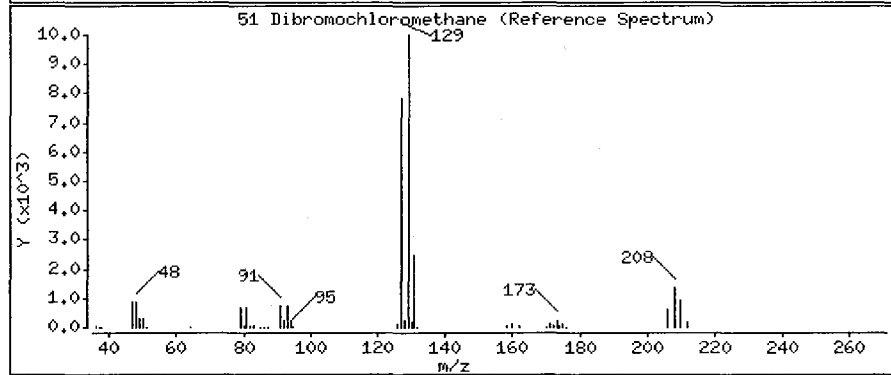
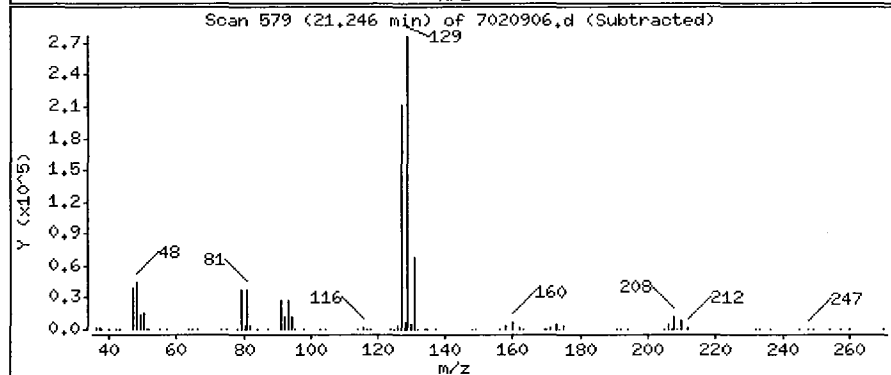
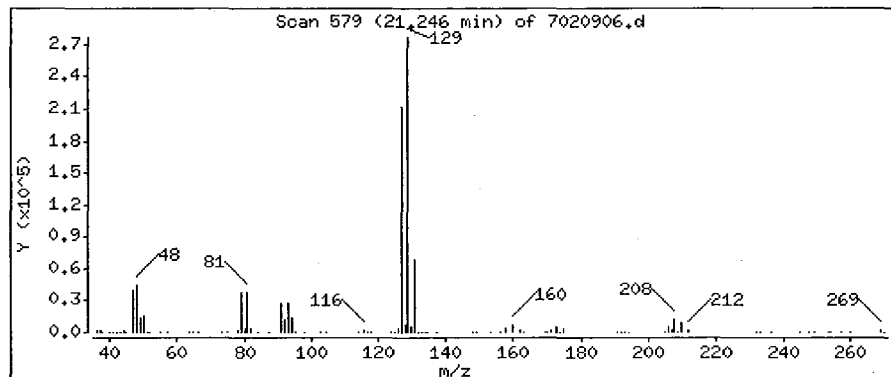
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

51 Dibromochloromethane

Concentration: 5.286 PPBV



0969

SCOEPAA00032641

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

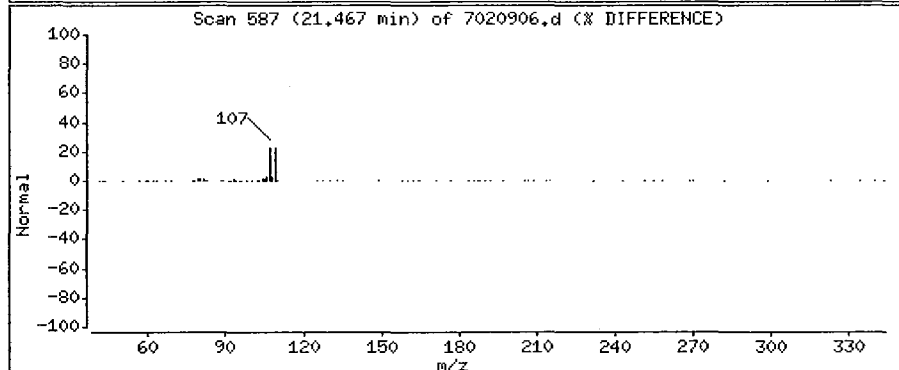
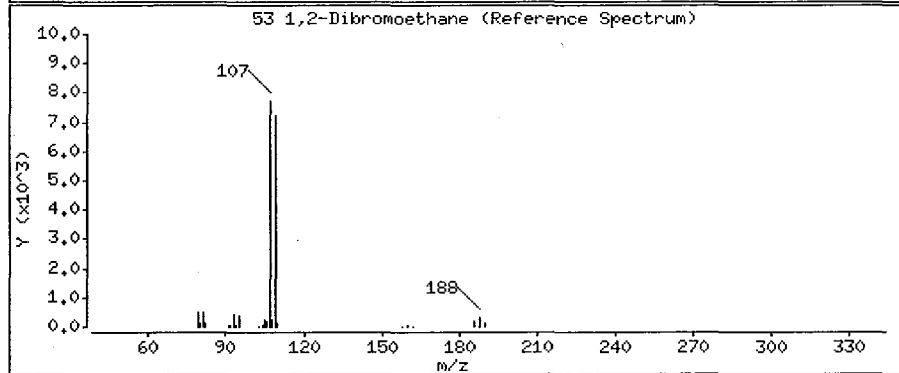
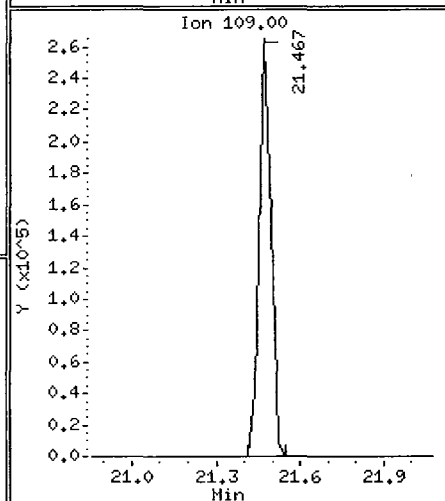
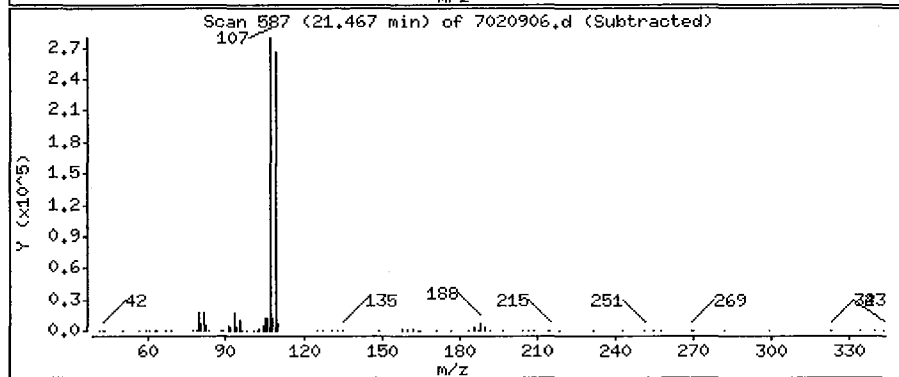
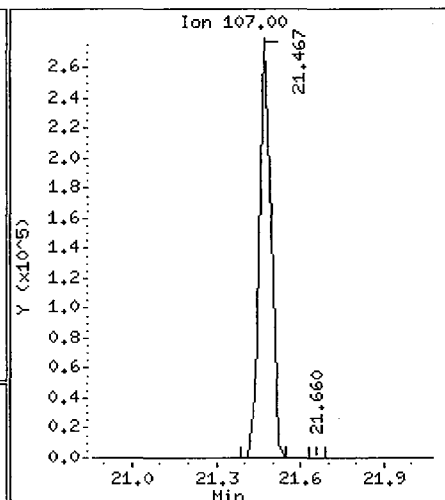
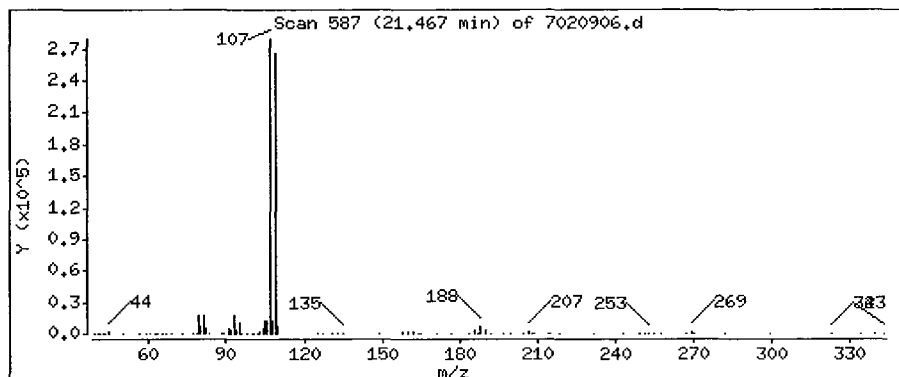
Operator: NW

Column phase: RTX-624

Column diameter: 0.32

53 1,2-Dibromoethane

Concentration: 5.811 PPBV



0970

SCOEPAA00032642

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

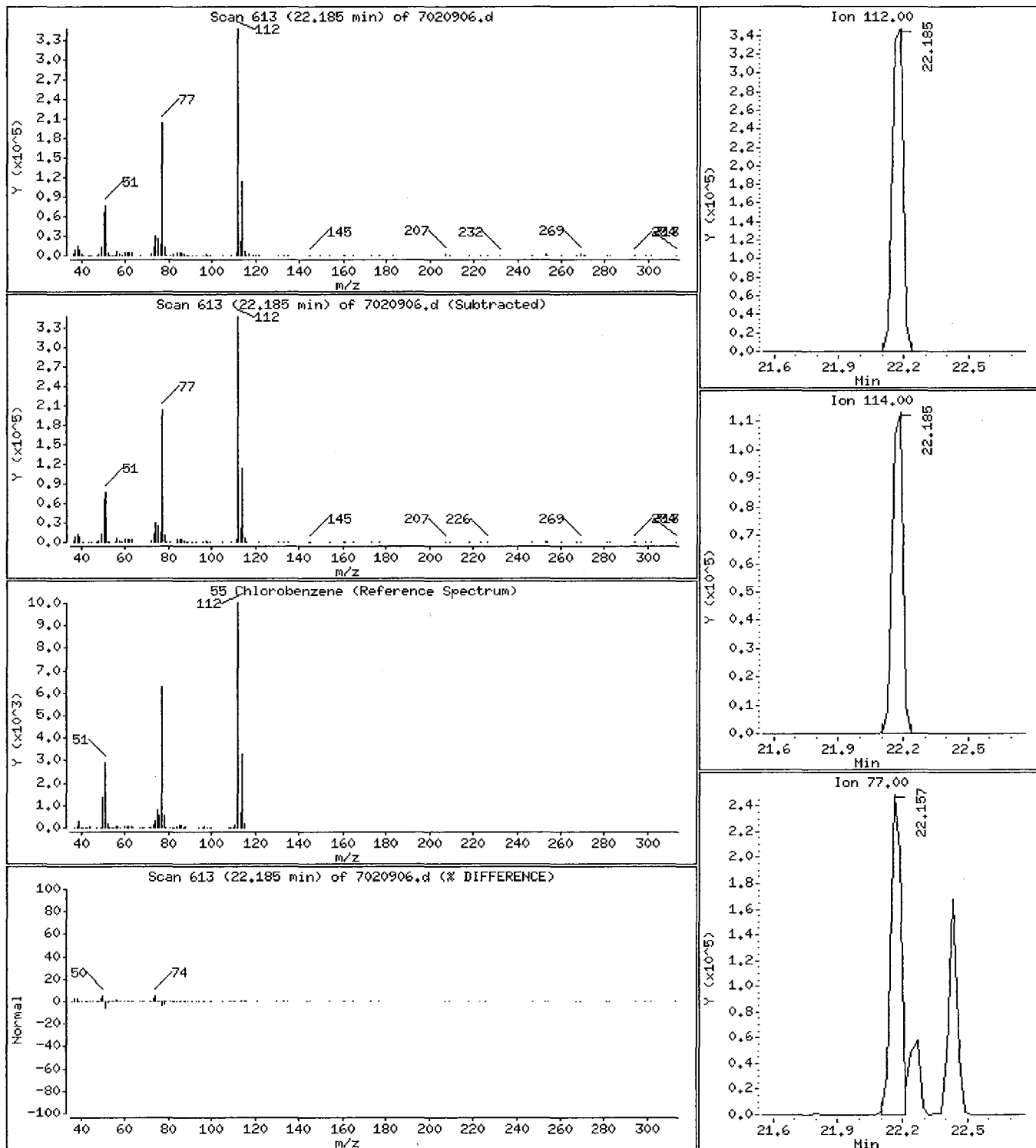
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

55 Chlorobenzene

Concentration: 5.623 PPBV



0971

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

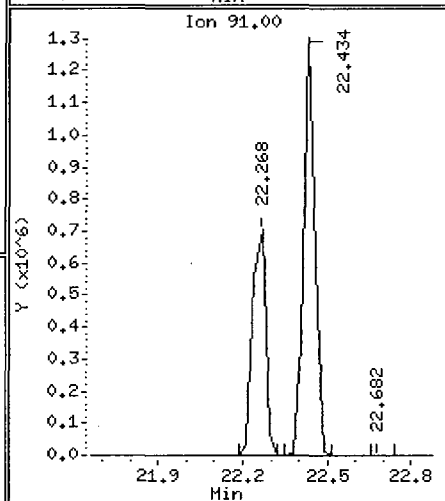
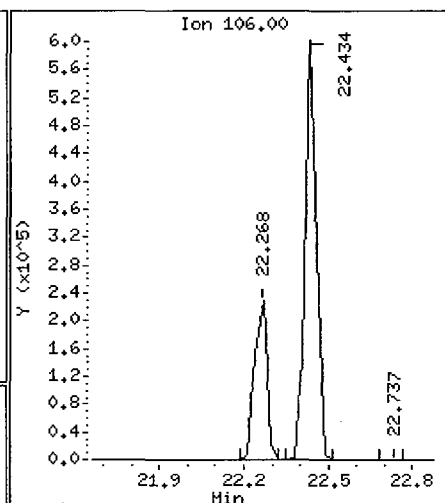
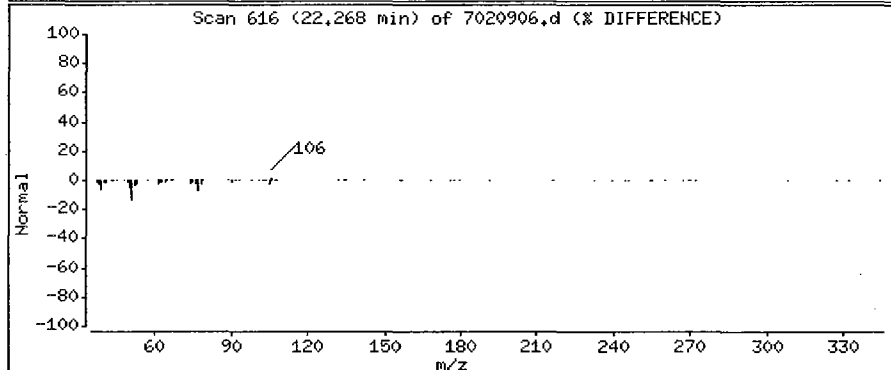
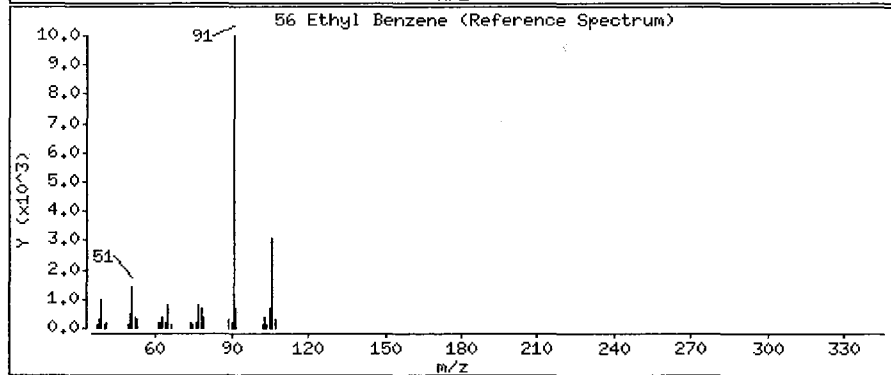
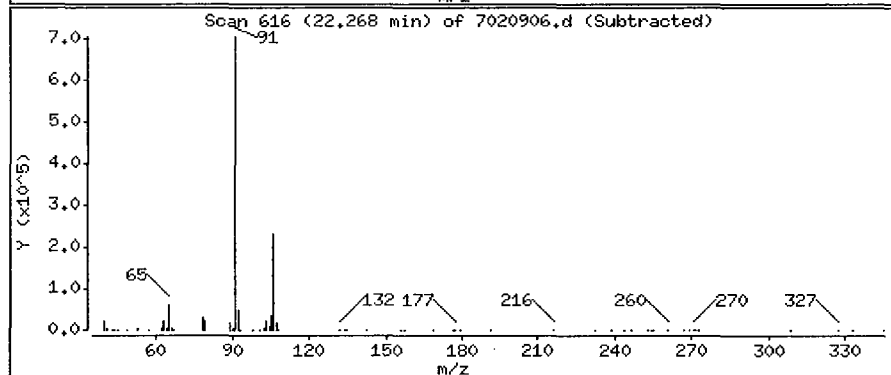
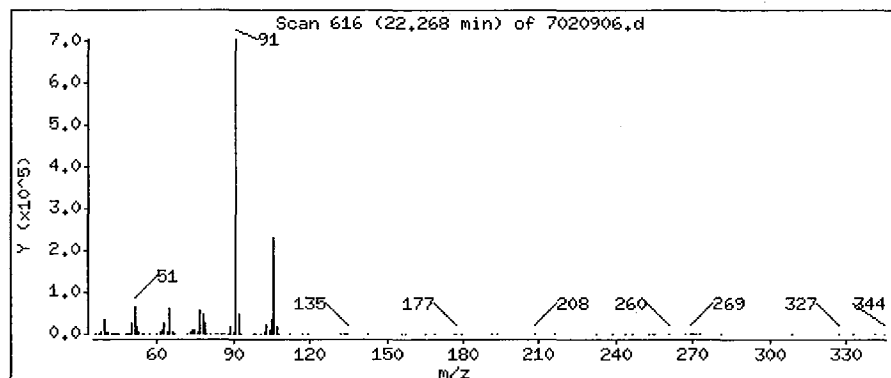
Operator: MW

Column phase: RTx-624

Column diameter: 0.32

56 Ethyl Benzene

Concentration: 5.495 PPBV



0972

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

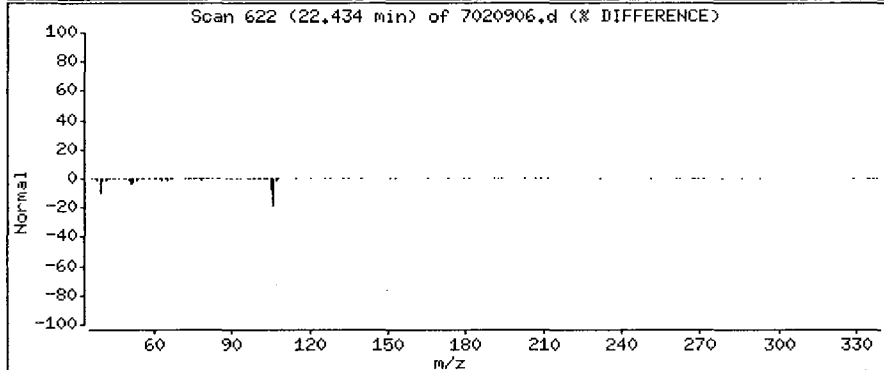
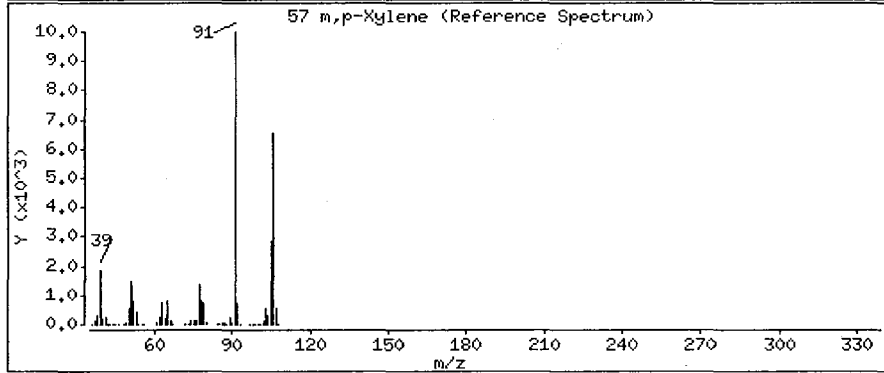
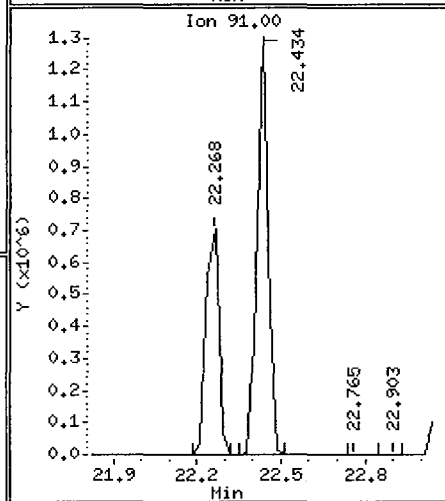
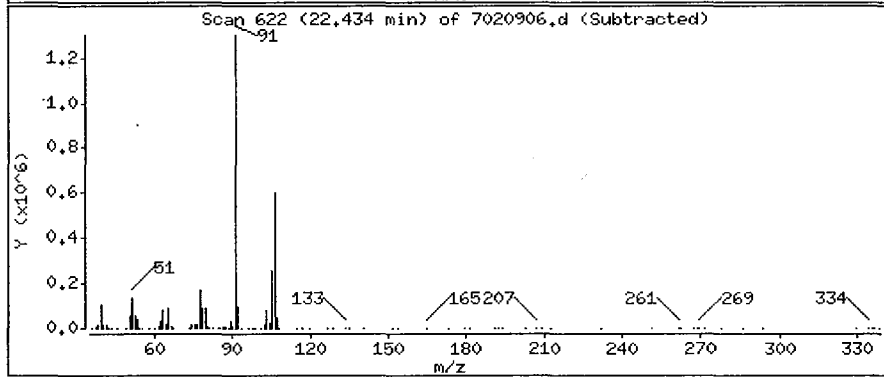
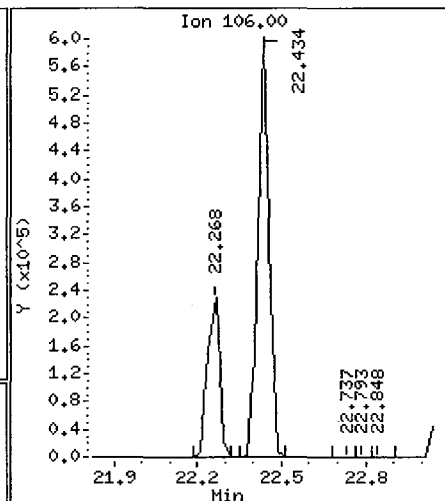
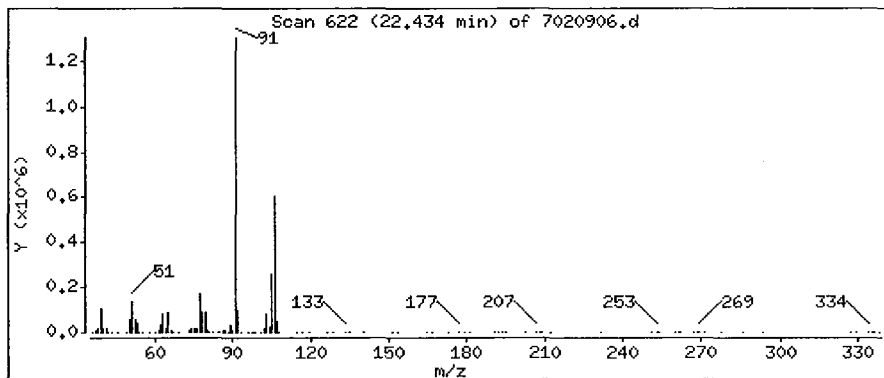
Operator: WJW

Column phase: RTX-624

Column diameter: 0.32

57 m,p-Xylene

Concentration: 10.690 PPBV



0973

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

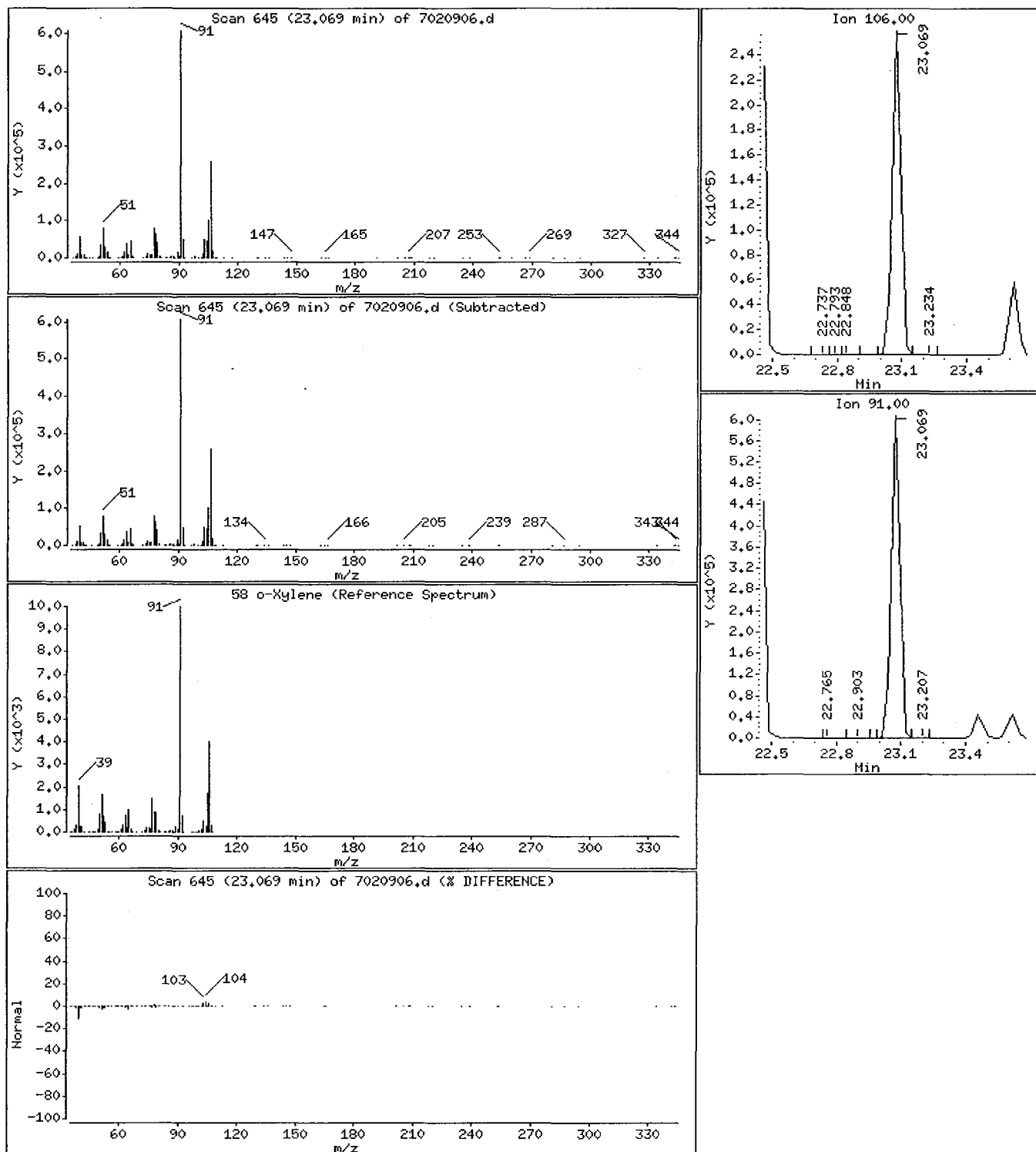
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

58 o-Xylene

Concentration: 5.815 PPBV



0974

SCOEPAA00032646

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

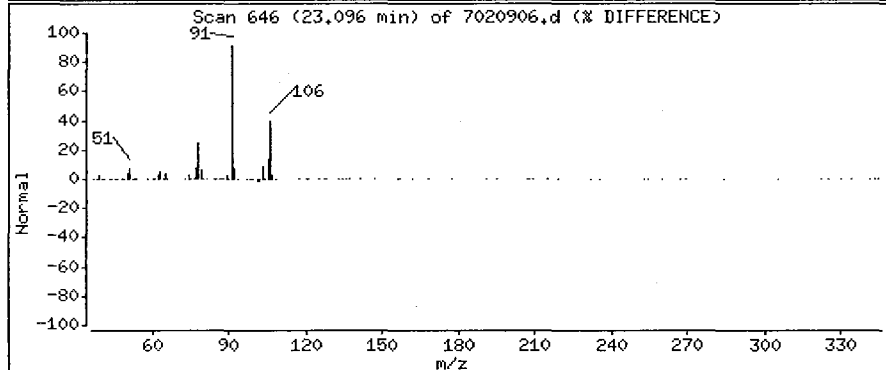
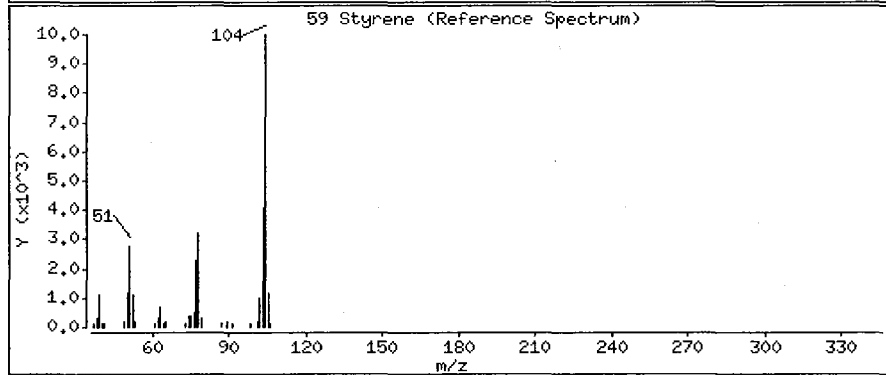
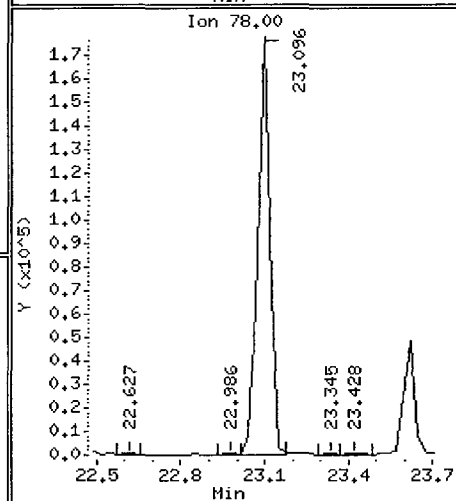
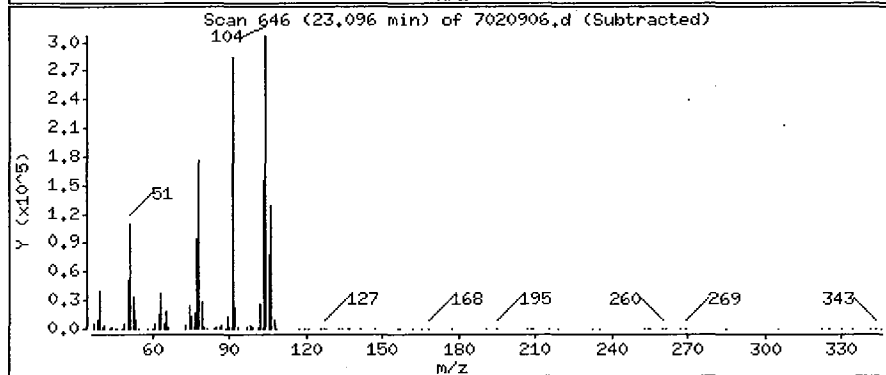
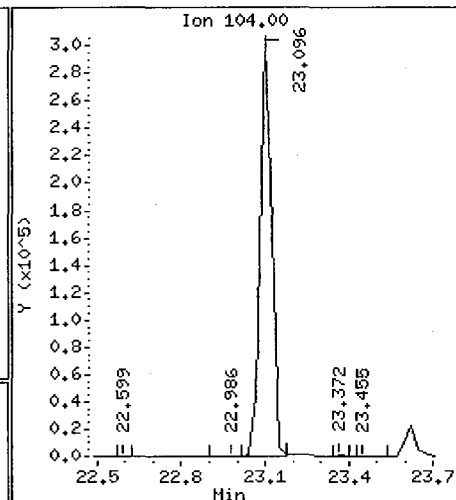
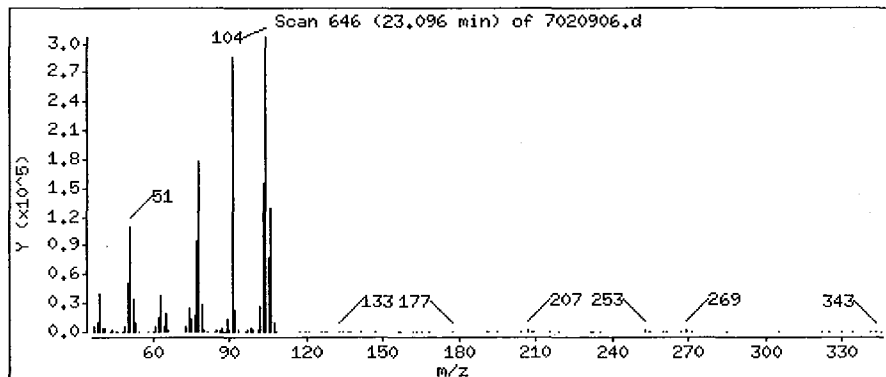
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

59 Styrene

Concentration: 4.529 PPBV



0975

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

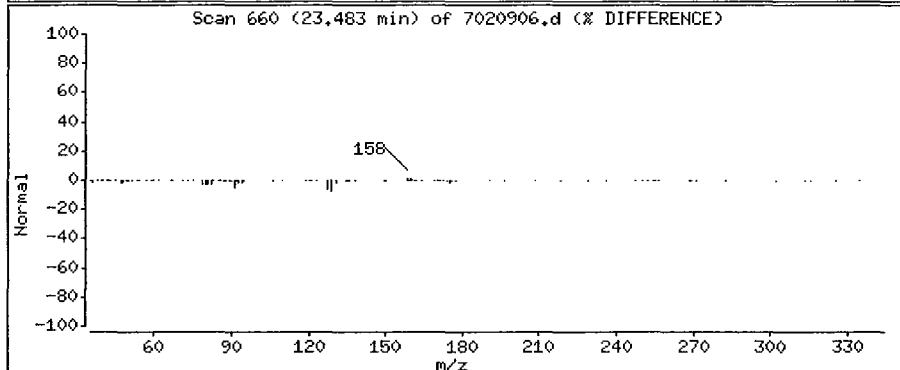
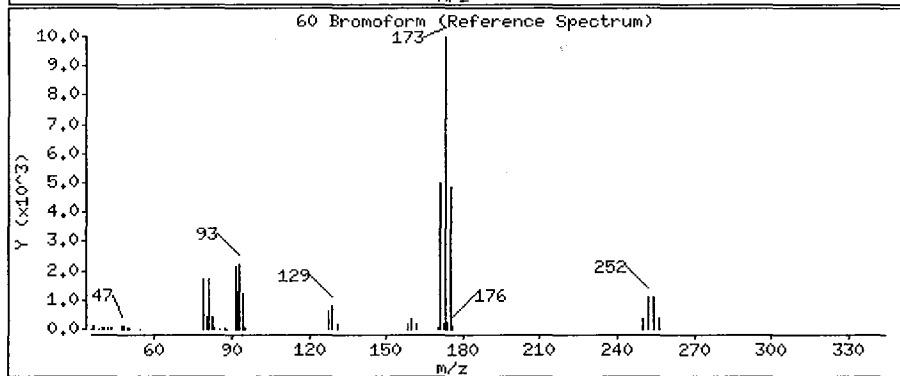
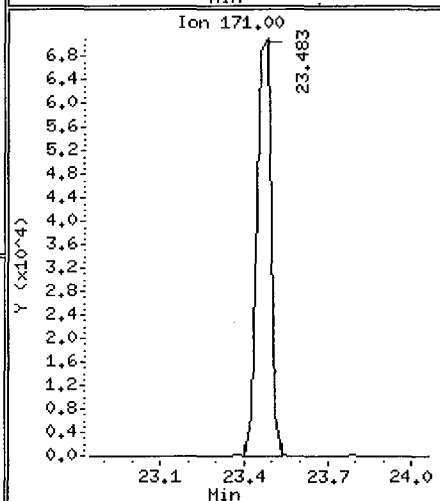
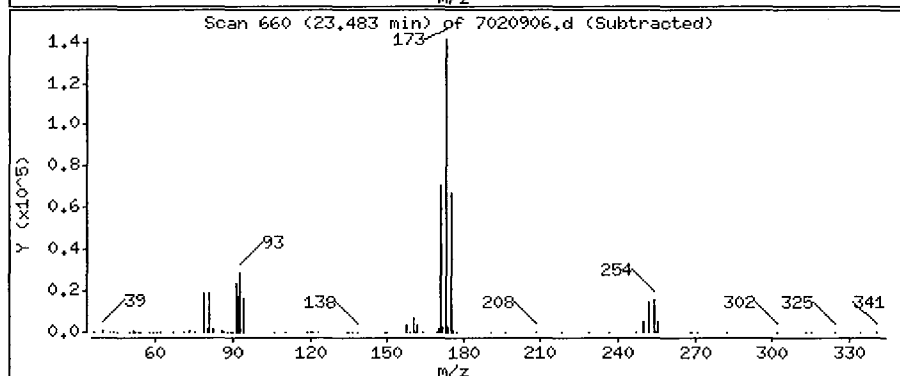
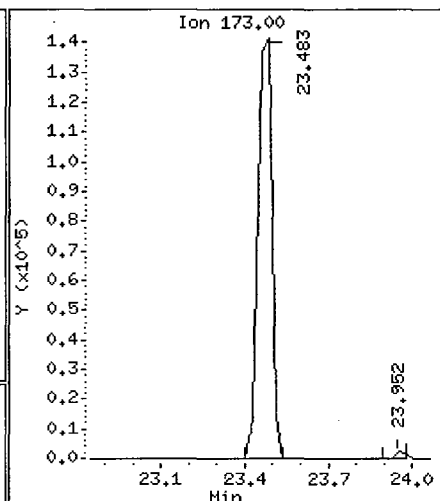
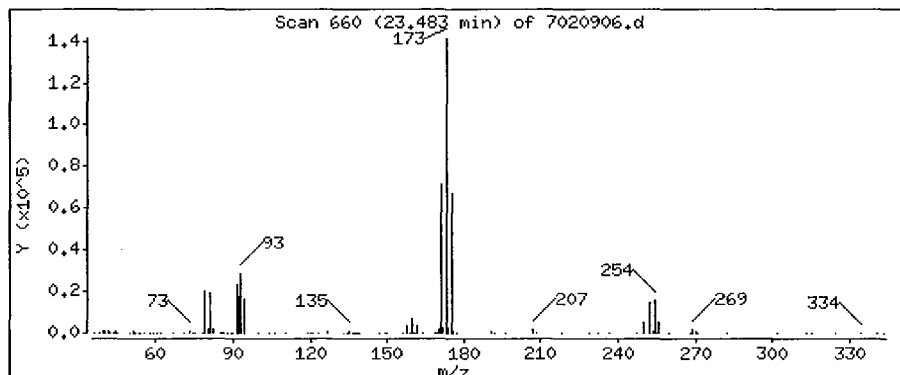
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

60 Bromoform

Concentration: 4.943 PPBV



0976

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

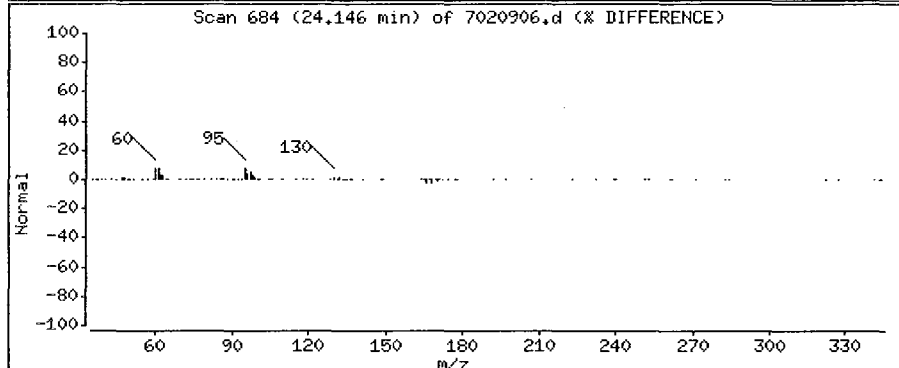
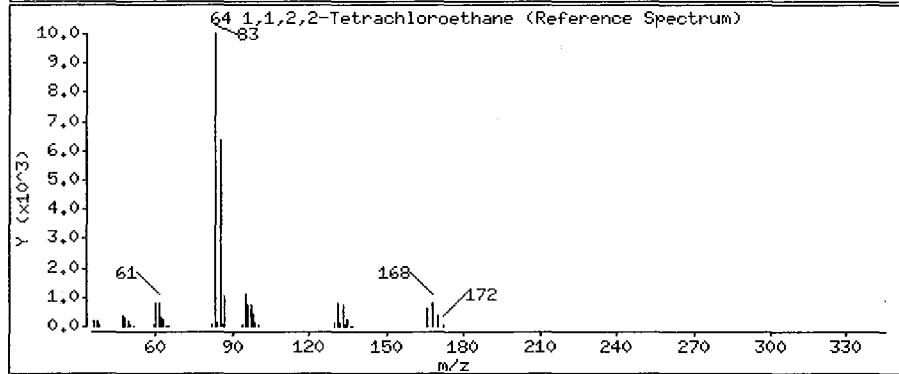
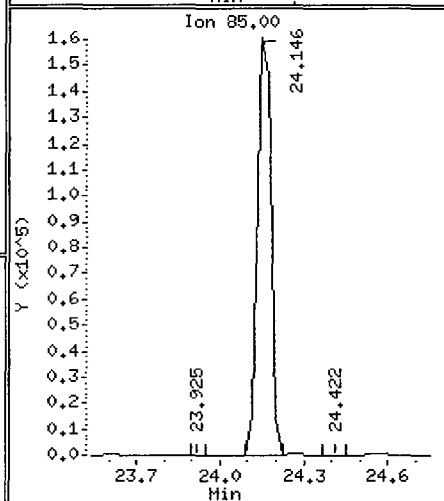
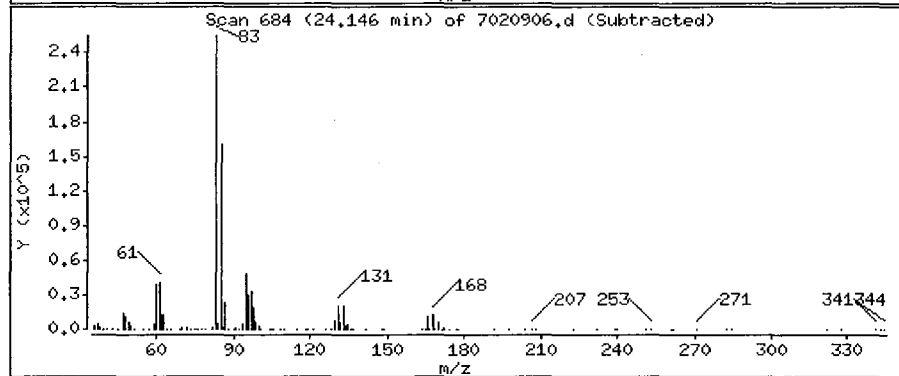
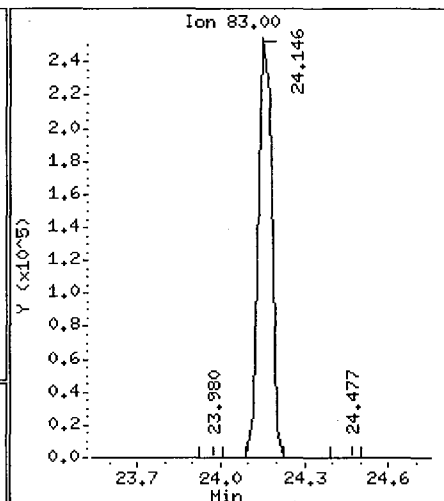
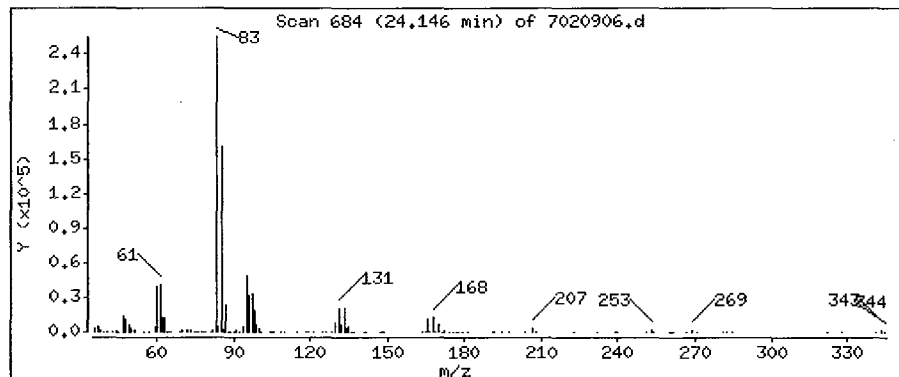
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

64 1,1,2,2-Tetrachloroethane

Concentration: 5.823 PPBV



0977

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

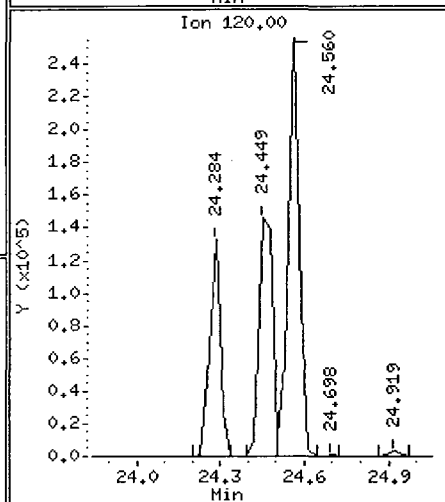
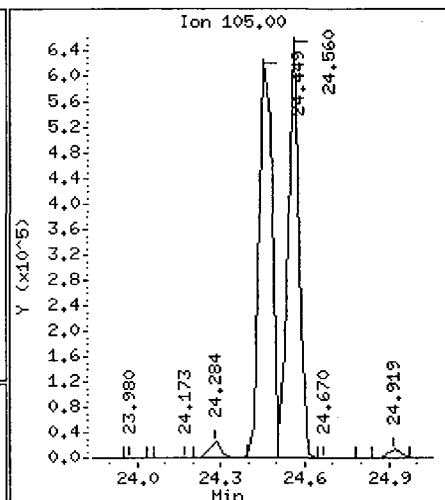
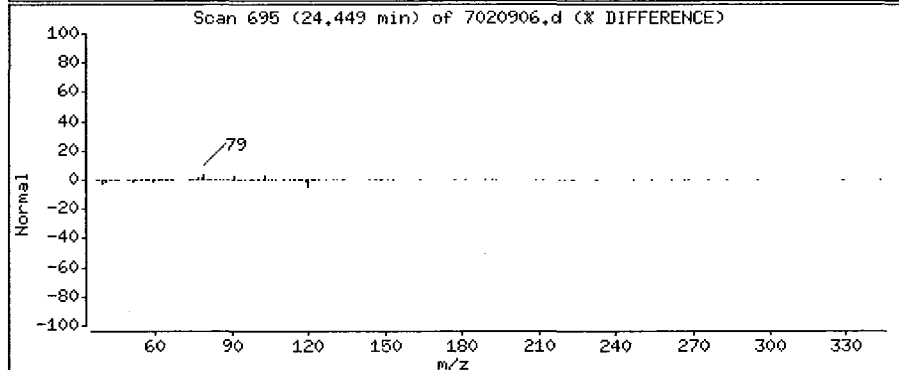
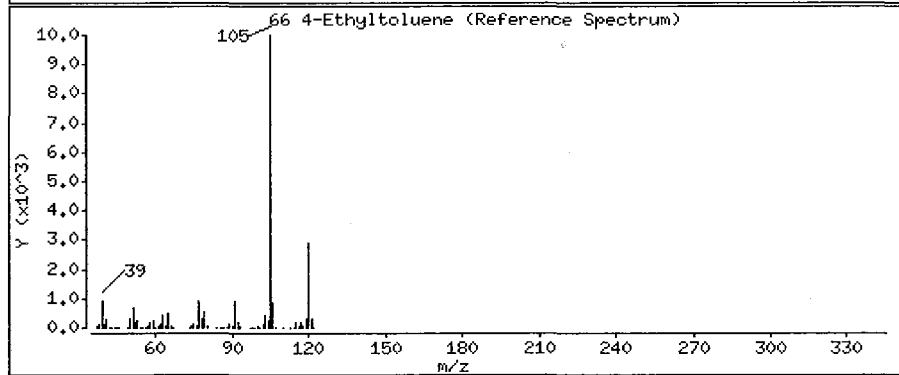
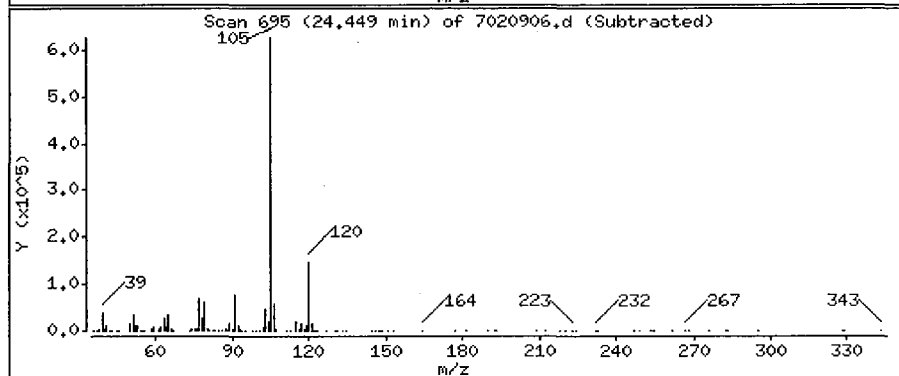
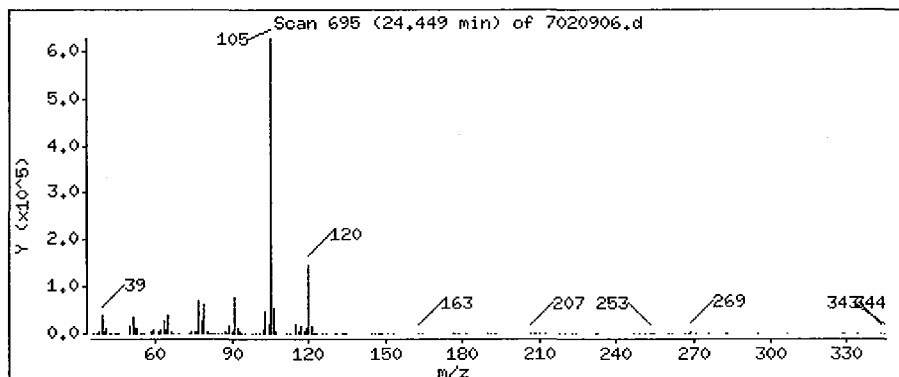
Operator: MN

Column phase: RTx-624

Column diameter: 0.32

66 4-Ethyltoluene

Concentration: 6.256 PPBV



0978

SCOEPAA00032650

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

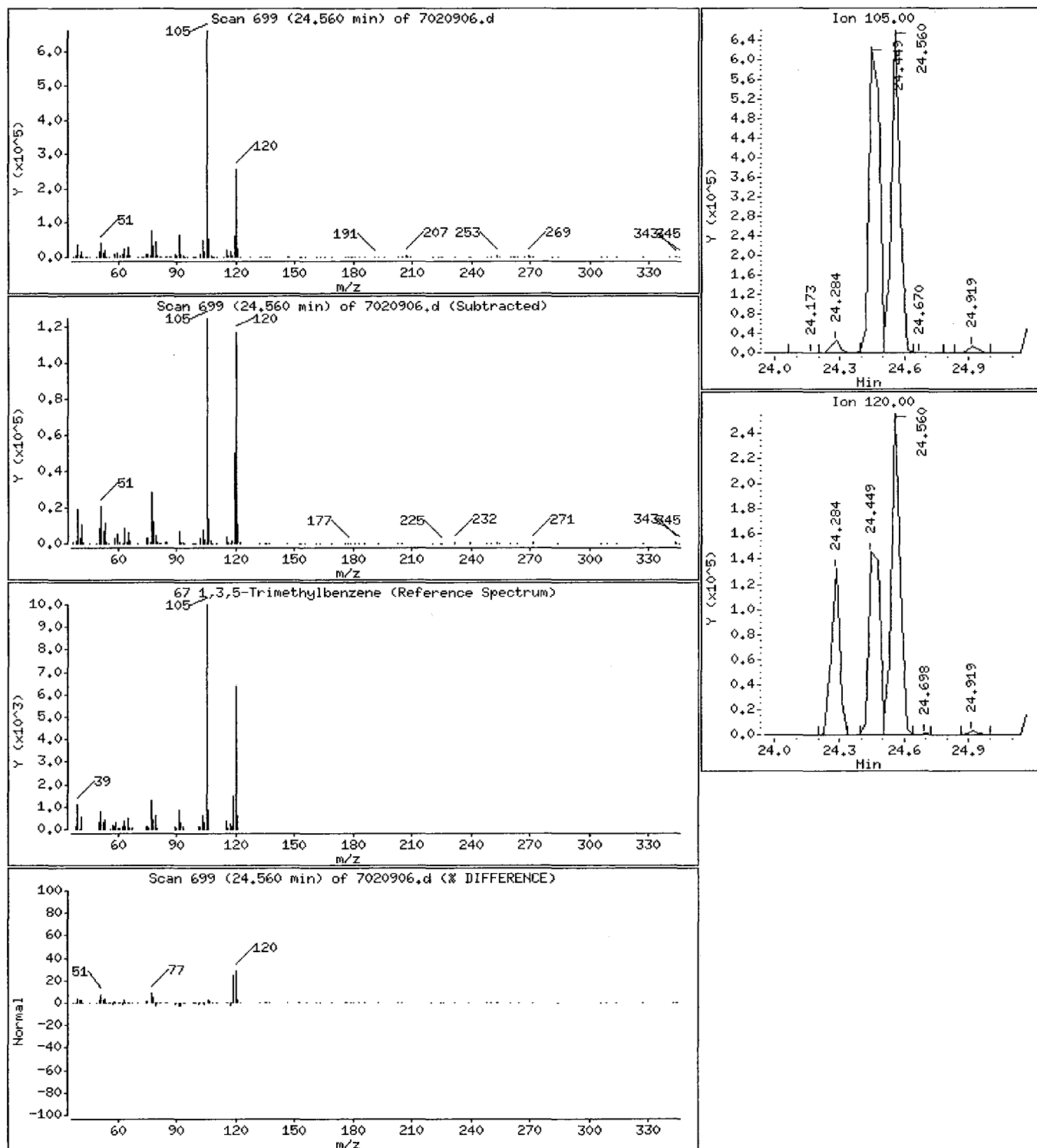
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

67 1,3,5-Trimethylbenzene

Concentration: 6.077 PPBV



0979

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

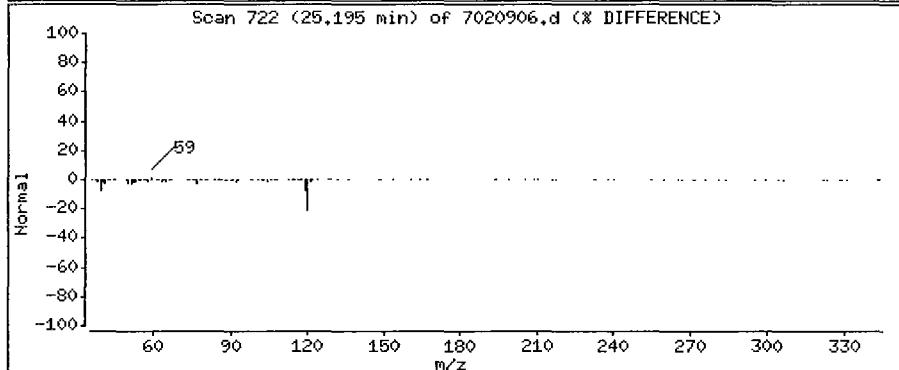
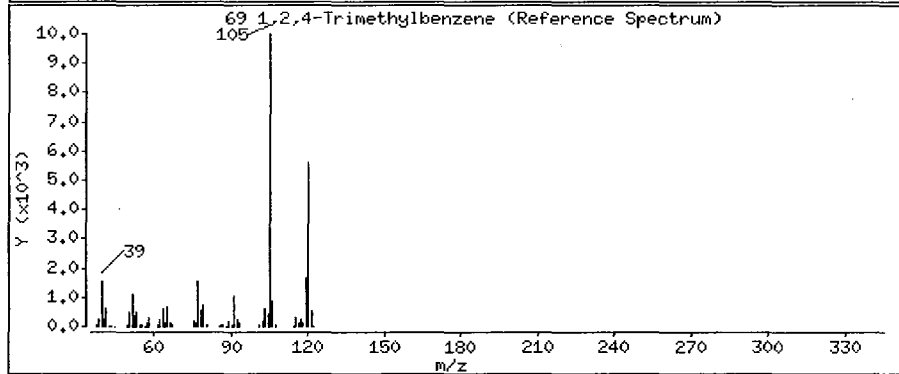
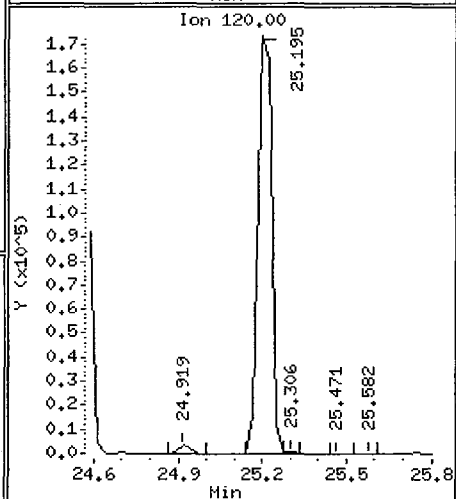
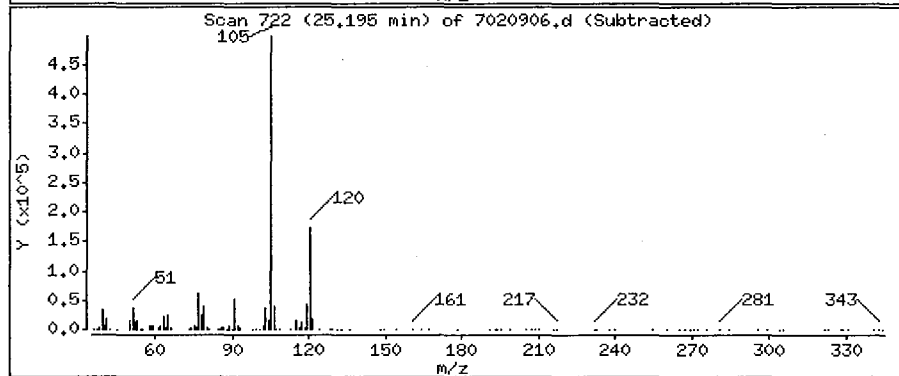
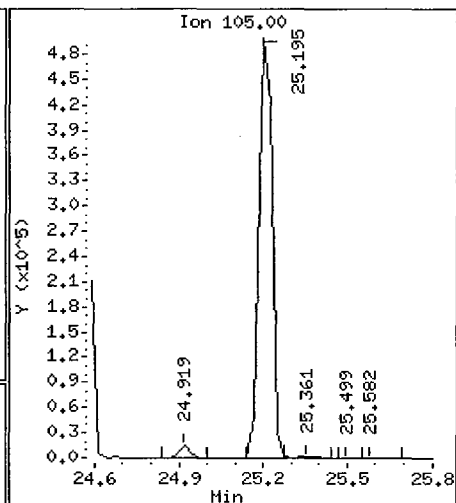
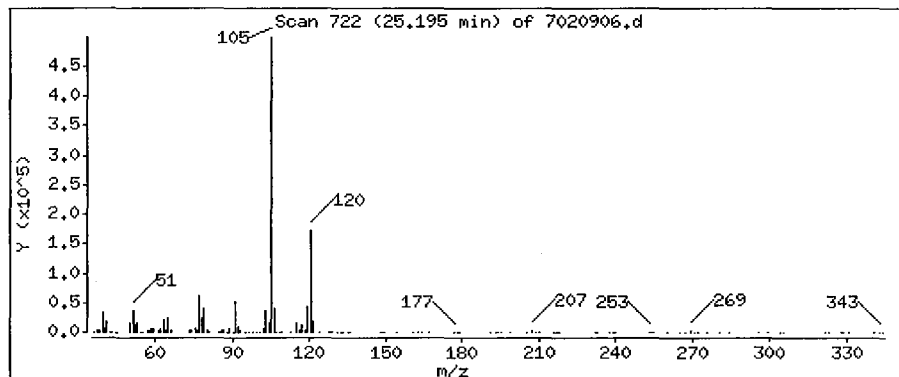
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

69 1,2,4-Trimethylbenzene

Concentration: 5.891 PPBV



0980

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

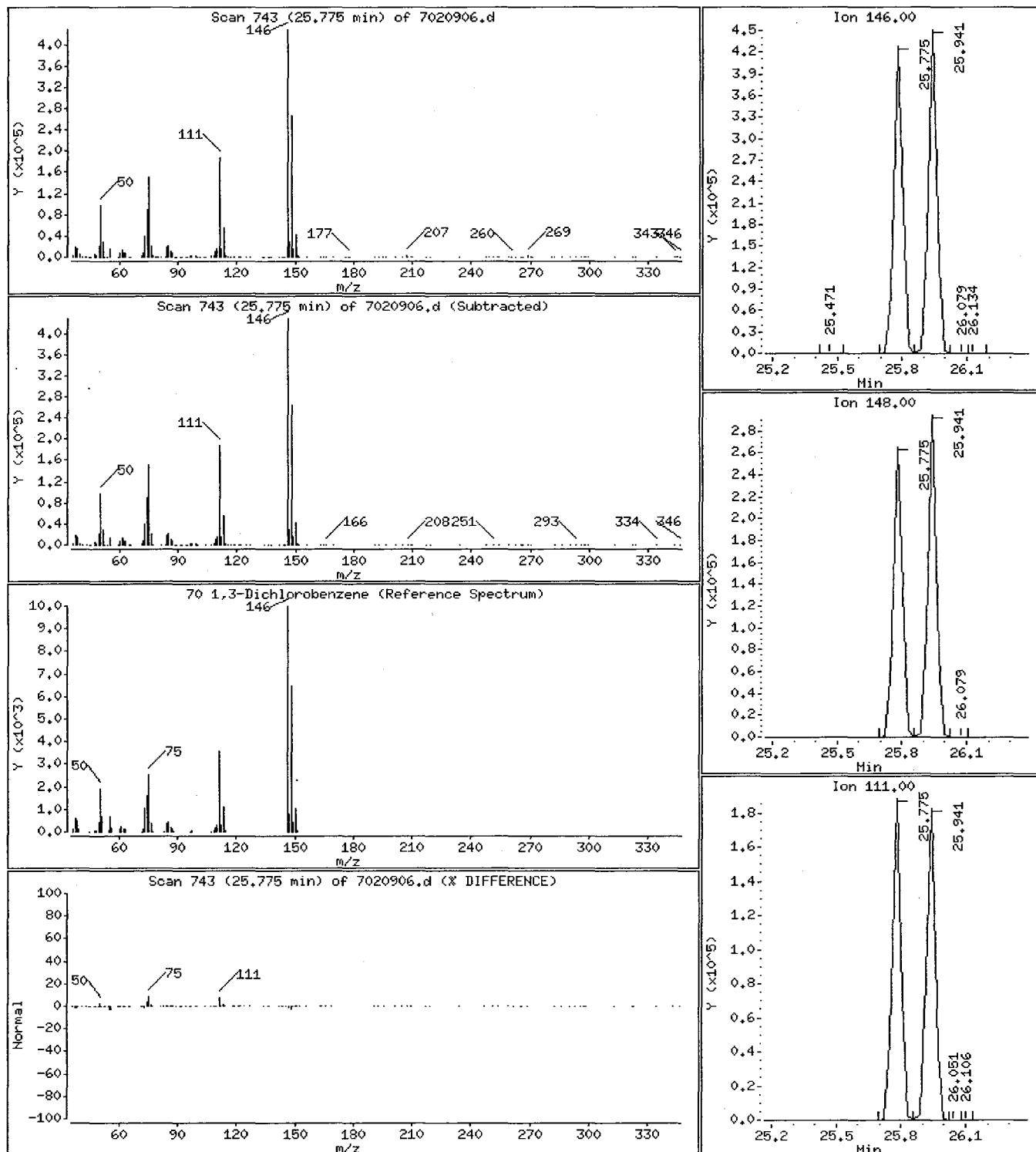
Operator: WM

Column phase: RTX-624

Column diameter: 0.32

70 1,3-Dichlorobenzene

Concentration: 5.963 PPBV



0981

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

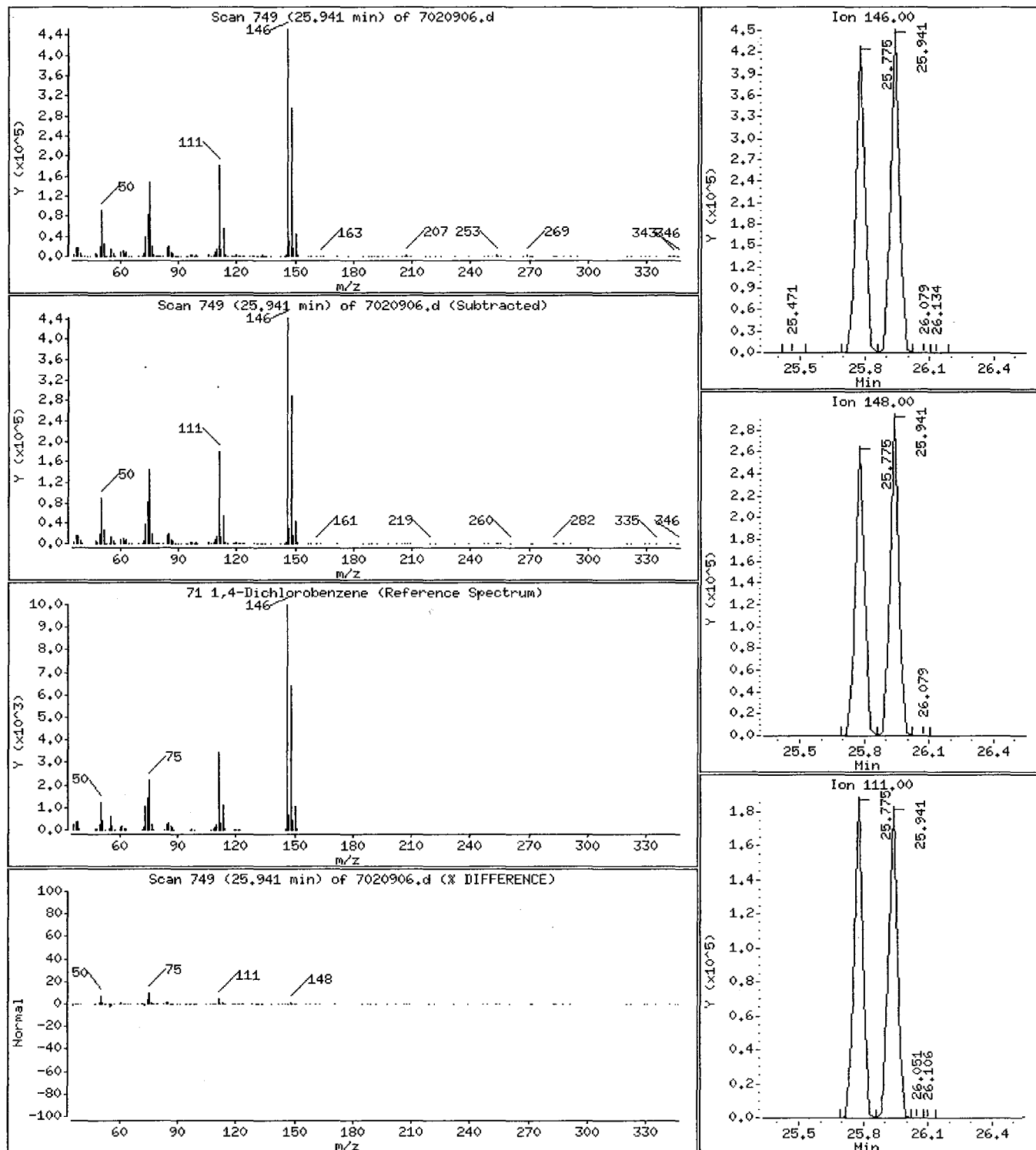
Operator: MM

Column phase: RTX-624

Column diameter: 0.32

71 1,4-Dichlorobenzene

Concentration: 5.852 PPBV



0982

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

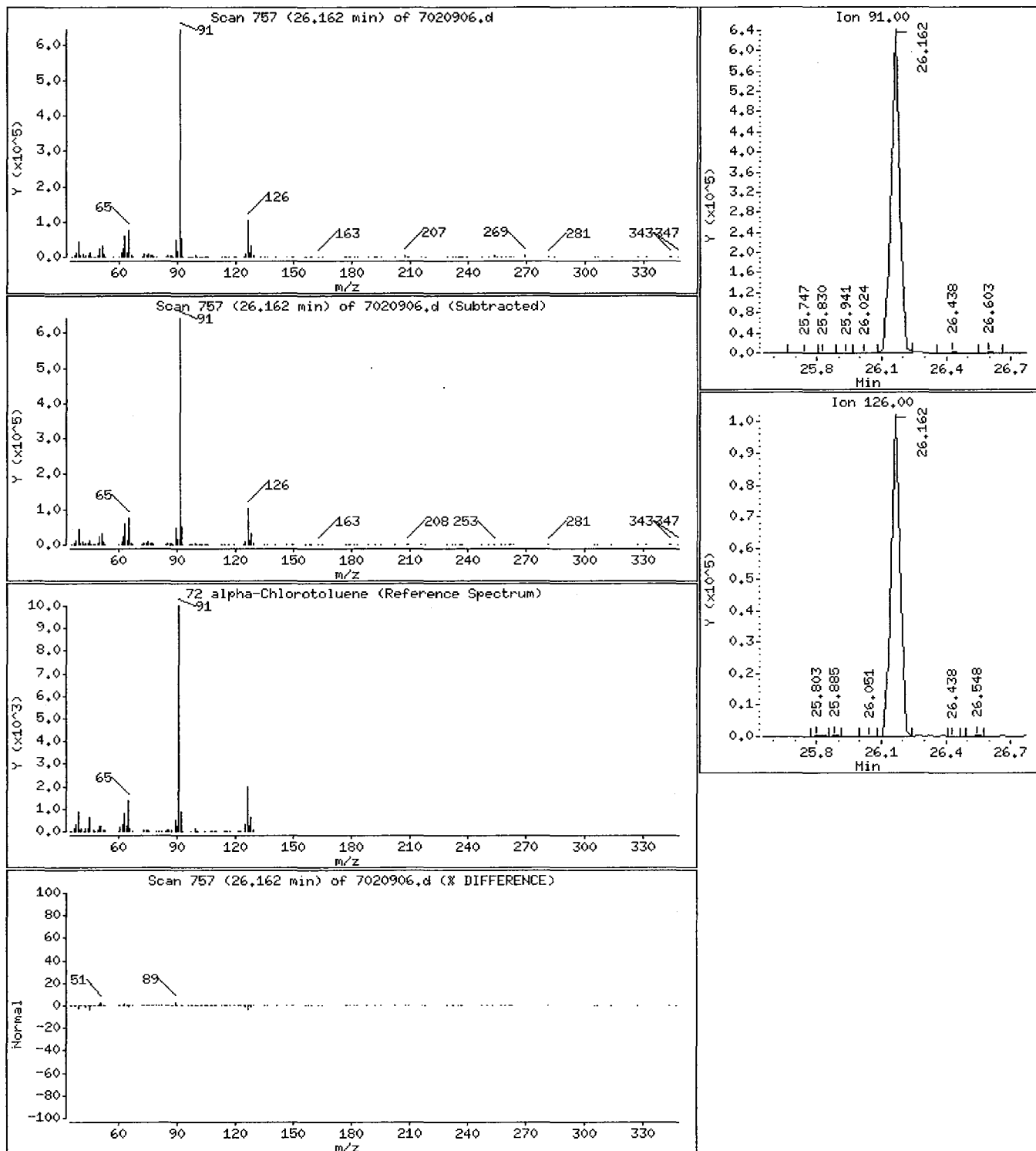
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

72 alpha-Chlorotoluene

Concentration: 7.212 PPBV



0983

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

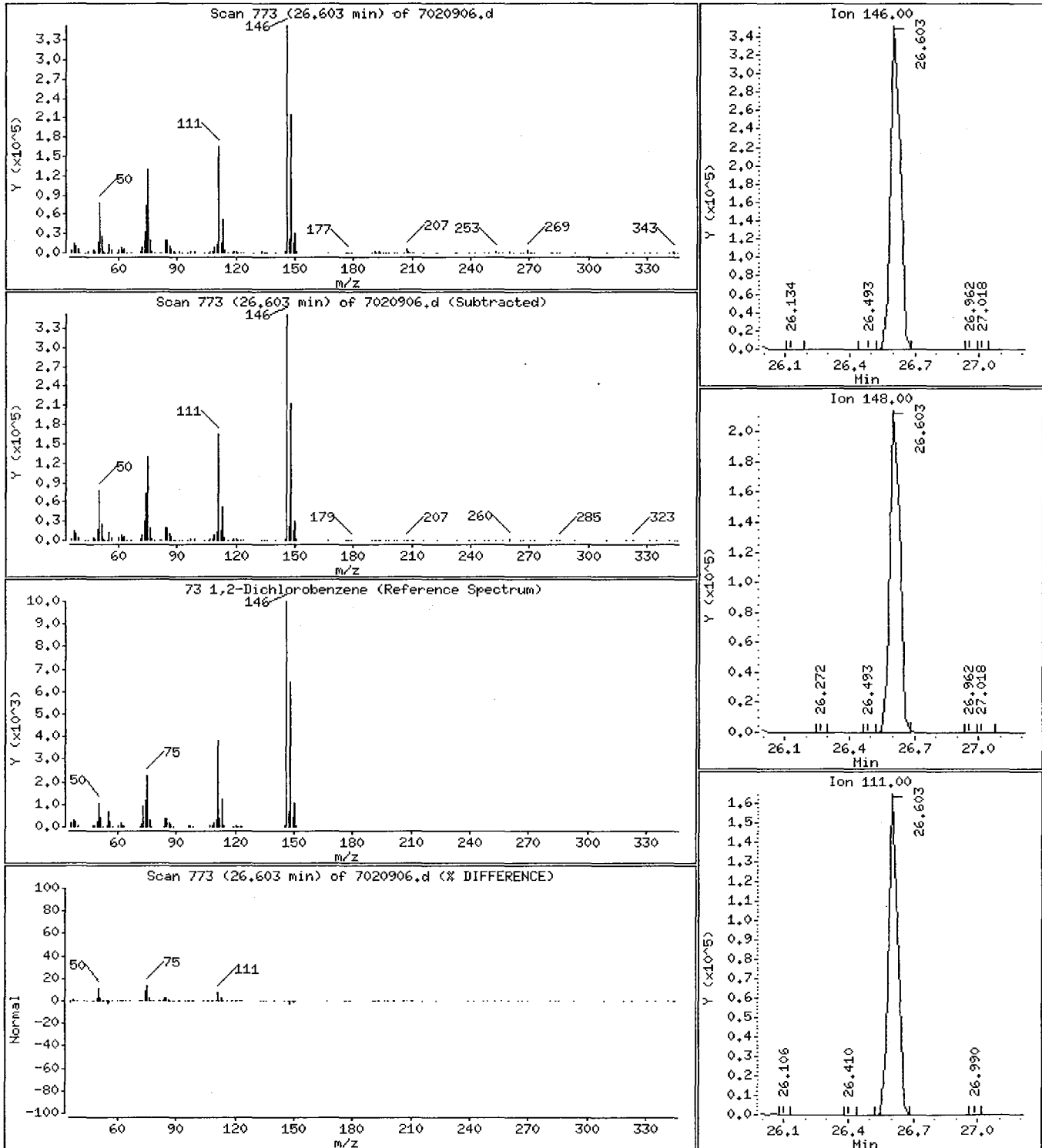
Operator: WW

Column phase: RTX-624

Column diameter: 0.32

73 1,2-Dichlorobenzene

Concentration: 5.923 PPBV



0984

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

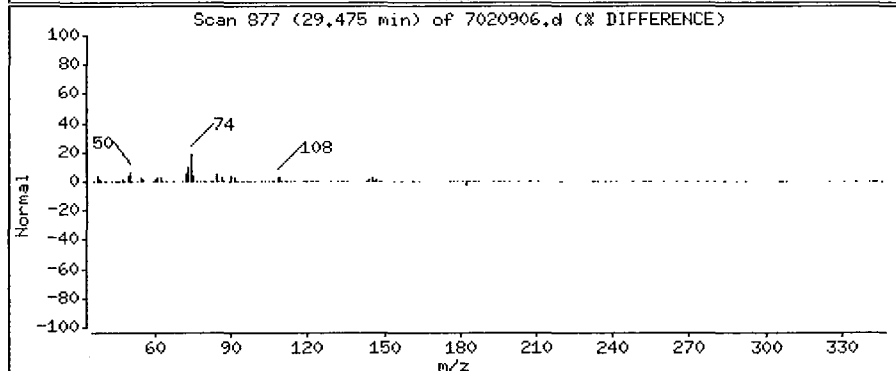
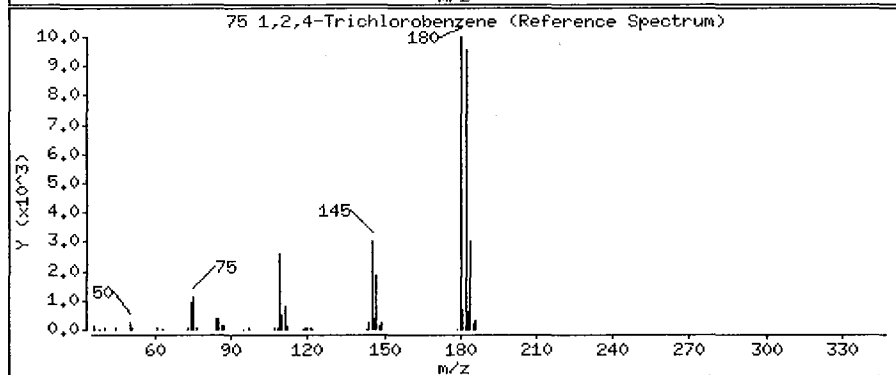
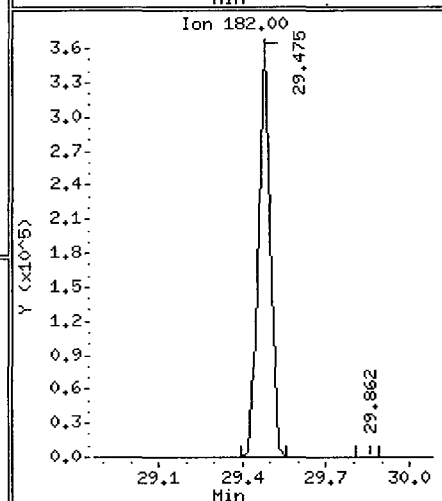
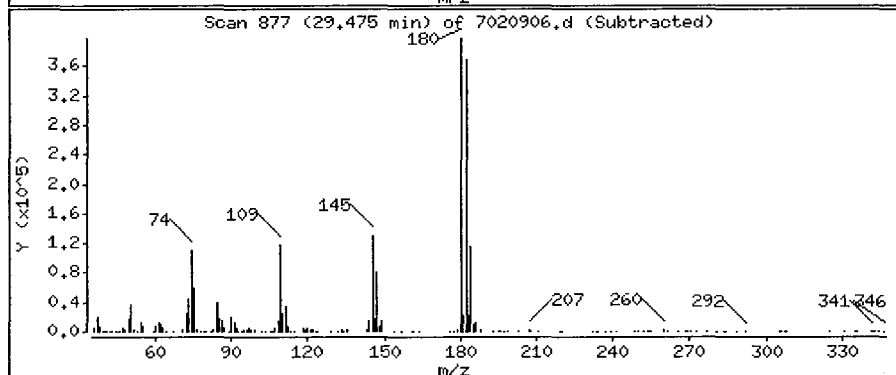
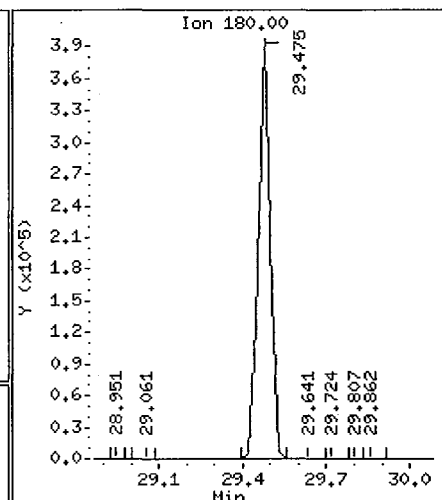
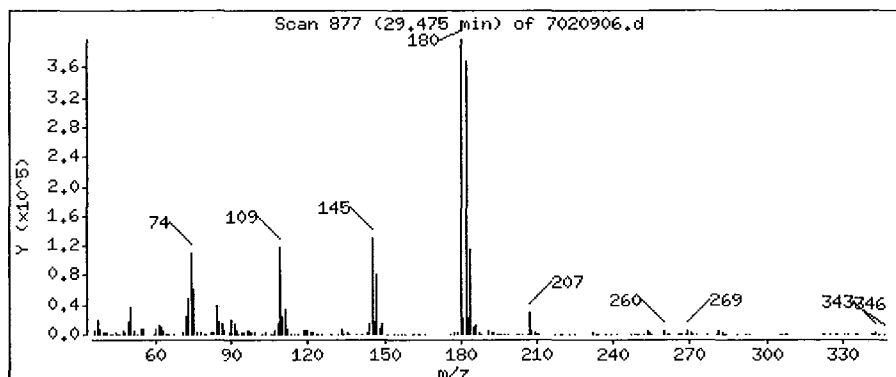
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

75 1,2,4-Trichlorobenzene

Concentration: 7.532 PPBV



0985

Data File: /chem/msd7.i/7-09feb.b/7020906.d

Page 61

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

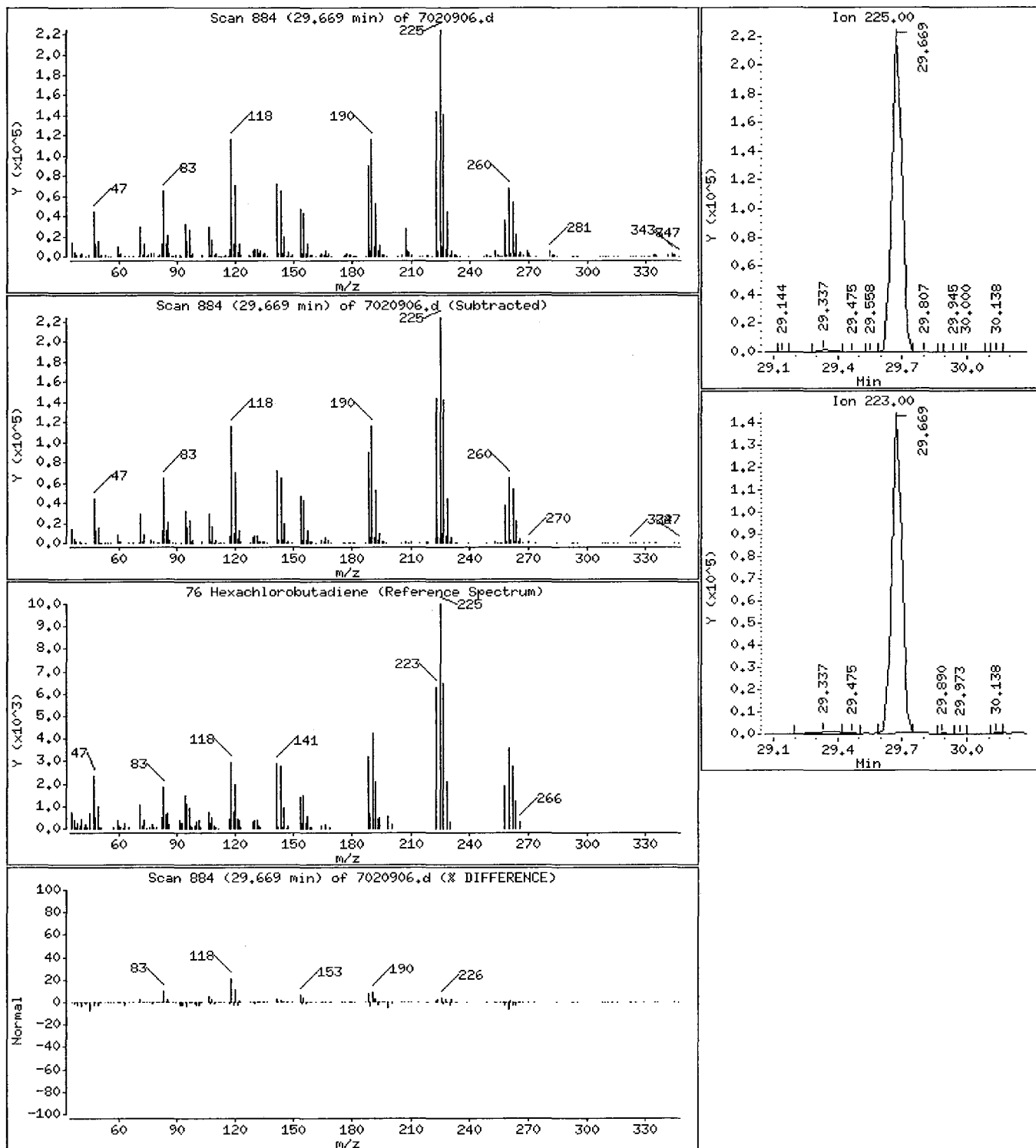
Operator: MN

Column phase: RTX-624

Column diameter: 0.32

76 Hexachlorobutadiene

Concentration: 6.860 PPBV



0986

SCOEPAA00032658

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

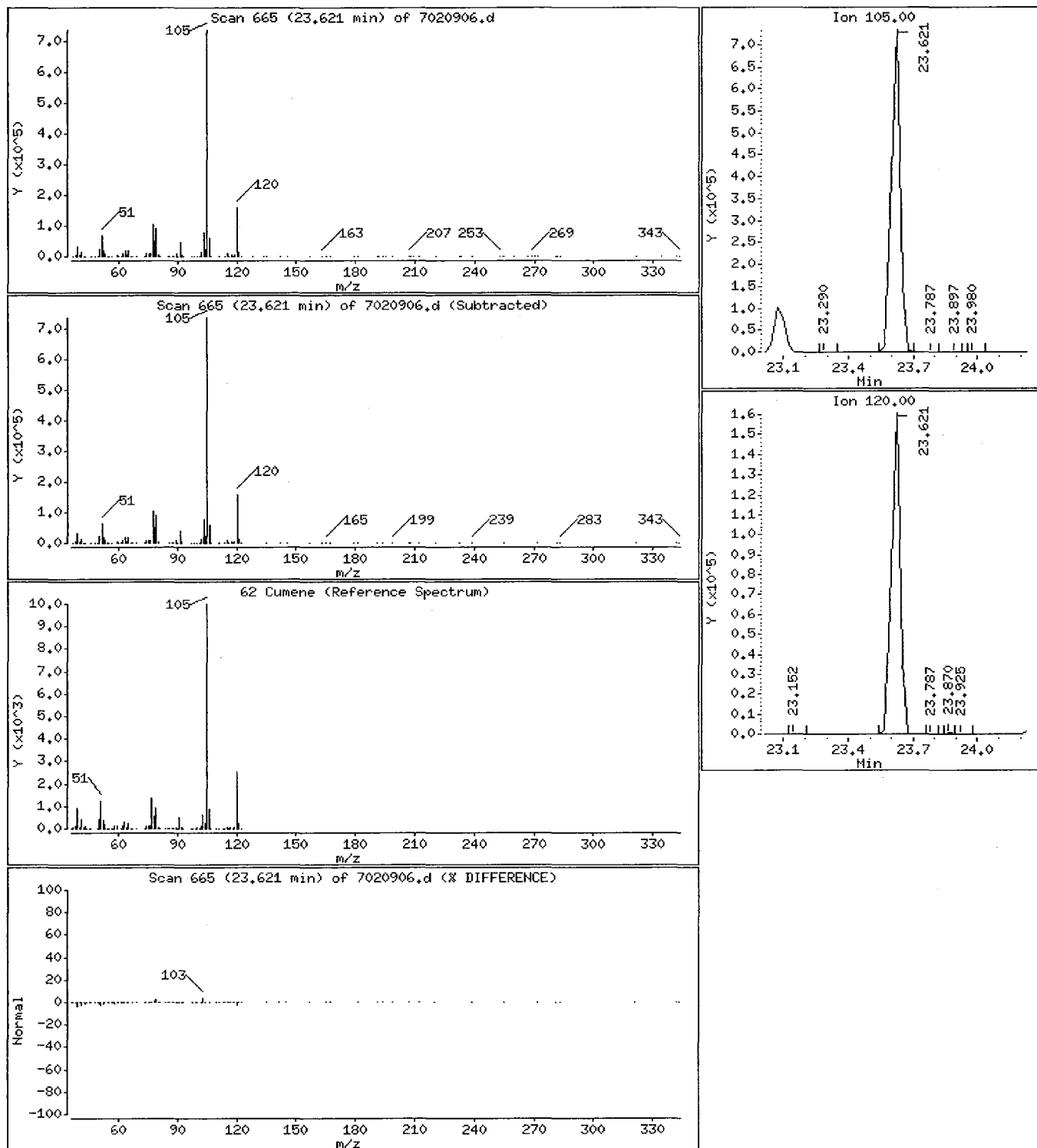
Operator: MW

Column phase: RTX-624

Column diameter: 0.32

62 Cumene

Concentration: 6.702 PPBV



0987

Date : 09-FEB-2005 05:46

Client ID: LCS

Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

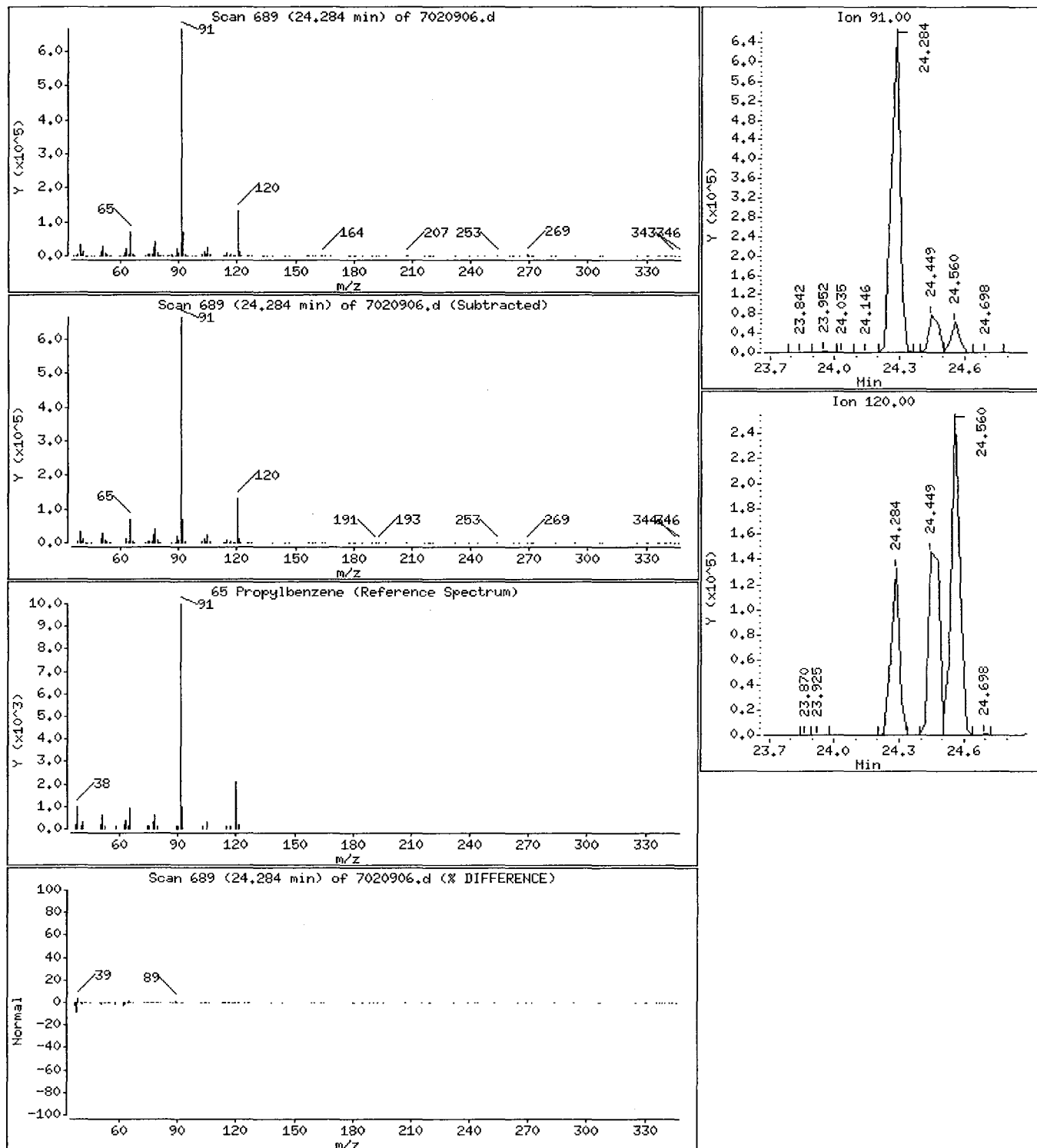
Operator: NW

Column phase: RTX-624

Column diameter: 0.32

65 Propylbenzene

Concentration: 4.365 PPBV



0988

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502032-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 04:42 AM

Compound	%Recovery
Freon 12	103
Freon 114	105
Chloromethane	100
Vinyl Chloride	102
Bromomethane	90
Chloroethane	98
Freon 11	108
1,1-Dichloroethene	101
Freon 113	104
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	104
Chloroform	108
1,1,1-Trichloroethane	124
Carbon Tetrachloride	65 Q
Benzene	98
1,2-Dichloroethane	119
Trichloroethene	114
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	112
Toluene	96
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	109
Tetrachloroethene	107
1,2-Dibromoethane (EDB)	111
Chlorobenzene	107
Ethyl Benzene	105
m,p-Xylene	101
o-Xylene	110
Styrene	84
1,1,2,2-Tetrachloroethane	112
1,3,5-Trimethylbenzene	117
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	116
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	140
1,2-Dichlorobenzene	114
Methylene Chloride	92
1,2,4-Trichlorobenzene	147 Q
Hexachlorobutadiene	132 Q
1,3-Butadiene	85
Acetone	90
Carbon Disulfide	90

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0502032-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7021005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/10/05 04:42 AM

Compound	%Recovery
2-Propanol	80
trans-1,2-Dichloroethene	93
2-Butanone (Methyl Ethyl Ketone)	87
Hexane	92
Tetrahydrofuran	93
Cyclohexane	97
1,4-Dioxane	104
Bromodichloromethane	99
4-Methyl-2-pentanone	94
2-Hexanone	94
Dibromochloromethane	102
Bromoform	96
4-Ethyltoluene	120
Ethanol	90
Methyl tert-butyl ether	100
Heptane	93
Cumene	127
Propylbenzene	83
Naphthalene	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics Ltd.

RECOVERY REPORT

Client Name:	Client SDG: 7-10feb
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCS	Client Smp ID: LCS
Level: LOW	Operator: WW
Data Type: MS DATA	SampleType: LCS
SpikeList File: AT.spk	Quant Type: ISTD
Sublist File: AT.sub	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 100mL [5.0ppbv]	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.737	114.73	60-140
1 Dichlorodifluorome	5.000	5.147	102.94	70-130
3 Freon 114	5.000	5.268	105.37	70-130
4 Chloromethane	5.000	5.000	100.00	70-130
6 Vinyl Chloride	5.000	5.084	101.69	70-130
7 1,3-Butadiene	5.000	4.243	84.86	60-140
8 Bromomethane	5.000	4.482	89.64	70-130
9 Chloroethane	5.000	4.914	98.27	70-130
10 Trichlorofluoromet	5.000	5.384	107.69	70-130
12 Ethanol	5.000	4.482	89.64	60-140
15 Freon 113	5.000	5.193	103.86	70-130
14 1,1-Dichloroethene	5.000	5.050	101.01	70-130
16 Acetone	5.000	4.522	90.43	60-140
17 Carbon Disulfide	5.000	4.528	90.55	60-140
18 2-Propanol	5.000	3.982	79.65	60-140
20 Methylene Chloride	5.000	4.622	92.45	70-130
21 MTBE	5.000	5.028	100.55	60-140
22 trans-1,2-Dichloro	5.000	4.640	92.79	60-140
24 Hexane	5.000	4.588	91.77	60-140
25 1,1-Dichloroethane	5.000	5.257	105.14	70-130
26 Vinyl Acetate	5.000	7.753	155.05*	60-140
27 cis-1,2-Dichloroet	5.000	5.183	103.66	70-130
28 2-Butanone	5.000	4.366	87.33	60-140
23 Tetrahydrofuran	5.000	4.635	92.71	60-140
30 Chloroform	5.000	5.397	107.95	70-130
31 Cyclohexane	5.000	4.834	96.68	60-140
32 1,1,1-Trichloroeth	5.000	6.229	124.58	70-130
33 Carbon Tetrachlori	5.000	3.233	64.67*	70-130
35 Benzene	5.000	4.910	98.19	70-130
36 1,2-Dichloroethane	5.000	5.963	119.26	70-130
37 Heptane	5.000	4.635	92.71	60-140
39 Trichloroethene	5.000	5.726	114.53	70-130
40 1,2-Dichloropropan	5.000	5.328	106.57	70-130
0991				

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
41 1,4-Dioxane	5.000	5.186	103.72	60-140
42 Bromodichlorometha	5.000	4.959	99.19	60-140
43 cis-1,3-Dichloropr	5.000	5.580	111.60	70-130
44 4-Methyl-2-pentano	5.000	4.694	93.88	60-140
46 Toluene	5.000	4.798	95.97	70-130
47 trans-1,3-Dichloro	5.000	5.402	108.05	70-130
48 1,1,2-Trichloroeth	5.000	5.466	109.31	70-130
49 Tetrachloroethene	5.000	5.335	106.70	70-130
50 2-Hexanone	5.000	4.717	94.35	60-140
51 Dibromochlorometha	5.000	5.124	102.48	60-140
53 1,2-Dibromoethane	5.000	5.543	110.86	70-130
55 Chlorobenzene	5.000	5.366	107.33	70-130
56 Ethyl Benzene	5.000	5.274	105.48	70-130
57 m,p-Xylene	10.000	10.080	100.80	70-130
58 o-Xylene	5.000	5.498	109.97	70-130
59 Styrene	5.000	4.222	84.43	70-130
60 Bromoform	5.000	4.807	96.13	60-140
64 1,1,2,2-Tetrachlor	5.000	5.597	111.93	70-130
66 4-Ethyltoluene	5.000	5.985	119.70	60-140
67 1,3,5-Trimethylben	5.000	5.841	116.83	70-130
69 1,2,4-Trimethylben	5.000	5.576	111.51	70-130
70 1,3-Dichlorobenzen	5.000	5.793	115.86	70-130
71 1,4-Dichlorobenzen	5.000	5.521	110.42	70-130
72 alpha-Chlorotoluen	5.000	7.011	140.22*	70-130
73 1,2-Dichlorobenzen	5.000	5.709	114.17	70-130
75 1,2,4-Trichloroben	5.000	7.336	146.71*	70-130
76 Hexachlorobutadien	5.000	6.598	131.97*	70-130
62 Cumene	5.000	6.360	127.20	60-140
65 Propylbenzene	5.000	4.146	82.93	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 34 1,2-Dichloroethane	10.000	10.403	104.03	70-130
\$ 45 Toluene-d8	10.000	9.807	98.07	70-130
\$ 63 Bromofluorobenzene	10.000	9.863	98.63	70-130

0992

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 SIM

Data file : /chem/msd7.i/7-10feb.b/7021005.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 10-FEB-2005 04:42
Operator : WW Inst ID: msd7.i
Smp Info : #1243-148 [25ppbv]
Misc Info : 100mL [5.0ppbv]
Comment :
Method : /chem/msd7.i/7-10feb.b/t141J27b.m
Meth Date : 10-Feb-2005 05:16 nshafer Quant Type: ISTD
Cal Date : 04-FEB-2005 11:49 Cal File: 7020407.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
---	-----	-----	----	-----	-----	-----	-----	-----	
* 29 Bromochloromethane						CAS #: 74-97-5			
16.331	16.331	(1.000)	130	459857	10.0000		80.00- 120.00	100.00	
16.331	16.331	(1.000)	128	350380			26.96- 126.96	76.19	
16.331	16.331	(1.000)	49	852133			126.50- 226.50	185.30	

* 38 1,4-Difluorobenzene						CAS #: 540-36-3			
17.794	17.794	(1.000)	114	2118529	10.0000		80.00- 120.00	100.00	
17.794	17.794	(1.000)	88	367531			0.00- 67.73	17.35	

* 54 Chlorobenzene-d5						CAS #: 3114-55-4			
22.130	22.130	(1.000)	117	1505814	10.0000		80.00- 120.00	100.00	
22.130	22.130	(1.000)	82	927256			9.26- 109.26	61.58	

\$ 34 1,2-Dichloroethane-d4						CAS #: 17060-07-0			
17.214	17.214	(1.054)	65	985262	10.4027	10.403	80.00- 120.00	100.00	
17.214	17.214	(1.054)	67	470475			0.17- 100.17	47.75	

\$ 45 Toluene-d8						CAS #: 2037-26-5			
19.893	19.893	(1.118)	98	1772570	9.80724	9.807	80.00- 120.00	100.00	
19.893	19.893	(1.118)	70	208795			0.00- 61.87	11.78	

0993

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 45 Toluene-d8 (continued)									
19.893	19.893	(1.118)	100	1257212			21.49- 121.49	70.93	

\$ 63 Bromofluorobenzene						CAS #: 460-00-4			
23.953	23.953	(1.082)	174	767199	9.86262	9.863	80.00- 120.00	100.00	
23.953	23.953	(1.082)	95	1170748			102.12- 202.12	152.60	
23.953	23.953	(1.082)	176	726216			47.05- 147.05	94.66	

2 Propylene						CAS #: 115-07-1			
5.644	5.644	(0.346)	41	586941	5.73665	5.737	80.00- 120.00	100.00	
5.644	5.644	(0.346)	42	393473			19.57- 119.57	67.04	
5.644	5.644	(0.346)	39	415049			24.97- 124.97	70.71	

1 Dichlorodifluoromethane/Fr12						CAS #: 75-71-8			
5.947	5.947	(0.364)	85	1918468	5.14684	5.147	80.00- 120.00	100.00	
5.947	5.947	(0.364)	87	627051			0.00- 82.65	32.68	

3 Freon 114						CAS #: 76-14-2			
7.052	7.052	(0.432)	135	1090601	5.26826	5.268	80.00- 120.00	100.00	
7.052	7.052	(0.432)	137	331595			0.00- 81.73	30.40	

4 Chloromethane						CAS #: 74-87-3			
7.356	7.356	(0.450)	50	537320	5.00008	5.000	80.00- 120.00	100.00	
7.356	7.356	(0.450)	52	166250			0.00- 84.65	30.94	

6 Vinyl Chloride						CAS #: 75-01-4			
8.074	8.074	(0.494)	62	598397	5.08456	5.084	80.00- 120.00	100.00	
8.074	8.074	(0.494)	64	169401			0.00- 79.80	28.31	

7 1,3-Butadiene						CAS #: 106-99-0			
8.295	8.295	(0.508)	54	415685	4.24304	4.243	80.00- 120.00	100.00	
8.295	8.295	(0.508)	39	395607			48.03- 148.03	95.17	

8 Bromomethane						CAS #: 74-83-9			
9.731	9.731	(0.596)	94	424107	4.48202	4.482	80.00- 120.00	100.00	
9.731	9.731	(0.596)	96	405197			41.62- 141.62	95.54	

9 Chloroethane						CAS #: 75-00-3			
10.228	10.228	(0.626)	64	275409	4.91363	4.914	80.00- 120.00	100.00	
10.228	10.228	(0.626)	66	77888			0.00- 83.15	28.28	

10 Trichlorofluoromethane/Fr11						CAS #: 75-69-4			
11.056	11.056	(0.677)	101	1745265	5.38458	5.384	80.00- 120.00	100.00	
11.056	11.056	(0.677)	103	1150446			14.29- 114.29	65.92	

12 Ethanol						CAS #: 64-17-5			
12.050	12.050	(0.738)	45	203904	4.48206	4.482	80.00- 120.00	100.00	

0994

CONCENTRATIONS								
		ON-COL		FINAL				
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
12 Ethanol (continued)								
12.050	12.050	(0.738)	43	50108			0.00- 76.71	24.57
12.050	12.050	(0.738)	46	85695			0.00- 90.17	42.03

15 Freon 113						CAS #: 76-13-1		
12.547	12.547	(0.768)	151	695746	5.19319	5.193	80.00- 120.00	100.00
12.547	12.547	(0.768)	153	433623			12.23- 112.23	62.32
12.547	12.547	(0.768)	101	934944			83.72- 183.72	134.38

14 1,1-Dichloroethene						CAS #: 75-35-4		
12.520	12.520	(0.767)	98	332934	5.05055	5.050	80.00- 120.00	100.00
12.520	12.520	(0.767)	61	963633			236.35- 336.35	289.44
12.520	12.520	(0.767)	96	535666			123.22- 223.22	160.89

16 Acetone						CAS #: 67-64-1		
12.851	12.824	(0.787)	43	1095636	4.52154	4.522	80.00- 120.00	100.00
12.851	12.824	(0.787)	58	283887			0.00- 78.78	25.91

17 Carbon Disulfide						CAS #: 75-15-0		
12.906	12.906	(0.790)	76	1362630	4.52761	4.528	80.00- 120.00	100.00

18 2-Propanol						CAS #: 67-63-0		
13.238	13.238	(0.811)	45	912106	3.98238	3.982	80.00- 120.00	100.00
13.238	13.238	(0.811)	43	189418			0.00- 69.75	20.77
13.238	13.238	(0.811)	59	35300			0.00- 53.72	3.87

20 Methylene Chloride						CAS #: 75-09-2		
13.735	13.735	(0.841)	84	443247	4.62229	4.622	80.00- 120.00	100.00
13.735	13.735	(0.841)	49	677802			96.36- 196.36	152.92
13.735	13.735	(0.841)	51	201101			0.00- 93.42	45.37

21 MTBE						CAS #: 1634-04-4		
14.149	14.149	(0.866)	73	1339213	5.02754	5.028	80.00- 120.00	100.00
14.149	14.149	(0.866)	57	320664			0.00- 73.89	23.94
14.149	14.149	(0.866)	41	324695			0.00- 73.24	24.25

22 trans-1,2-Dichloroethene						CAS #: 156-60-5		
14.177	14.177	(0.868)	98	330062	4.63959	4.640	80.00- 120.00	100.00
14.177	14.177	(0.868)	61	775971			191.91- 291.91	235.10
14.177	14.177	(0.868)	96	492485			105.43- 205.43	149.21

24 Hexane						CAS #: 110-54-3		
14.563	14.563	(0.892)	57	833741	4.58841	4.588	80.00- 120.00	100.00
14.563	14.563	(0.892)	43	539206			15.23- 115.23	64.67
14.563	14.563	(0.892)	86	131027			0.00- 65.23	15.72

0995

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====		=====
25 1,1-Dichloroethane						CAS #: 75-34-3			
15.005	15.005	(0.919)	63	1032294	5.25695	5.257	80.00-	120.00	100.00
15.005	15.005	(0.919)	65	300468			0.00-	79.63	29.11
26 Vinyl Acetate						CAS #: 108-05-4			
15.060	15.060	(0.922)	43	415780	7.75272	7.753	80.00-	120.00	100.00(R)
15.060	15.060	(0.922)	42	38429			0.00-	59.40	9.24
15.060	15.060	(0.922)	86	39956			0.00-	58.65	9.61
27 cis-1,2-Dichloroethene						CAS #: 156-59-2			
15.944	15.944	(0.976)	98	344674	5.18295	5.183	80.00-	120.00	100.00
15.944	15.944	(0.976)	61	791079			239.52-	339.52	229.52
15.944	15.944	(0.976)	96	528655			106.18-	206.18	153.38
28 2-Butanone						CAS #: 78-93-3			
15.972	15.972	(0.978)	72	219259	4.36651	4.366	80.00-	120.00	100.00
15.972	15.972	(0.978)	43	1103699			1029.22-	1129.22	503.38
15.972	15.972	(0.978)	57	89943			0.00-	89.21	41.02
23 Tetrahydrofuran						CAS #: 109-99-9			
16.331	16.331	(1.000)	42	645886	4.63529	4.635	80.00-	120.00	100.00
16.331	16.331	(1.000)	71	213988			0.00-	84.14	33.13
16.331	16.331	(1.000)	72	223322			0.00-	86.54	34.58
30 Chloroform						CAS #: 67-66-3			
16.414	16.414	(1.005)	83	1187309	5.39745	5.397	80.00-	120.00	100.00
16.414	16.414	(1.005)	85	761414			16.09-	116.09	64.13
31 Cyclohexane						CAS #: 110-82-7			
16.662	16.662	(1.020)	84	485662	4.83389	4.834	80.00-	120.00	100.00
16.662	16.662	(1.020)	56	691883			93.37-	193.37	142.46
16.662	16.662	(1.020)	41	383913			30.80-	130.80	79.05
32 1,1,1-Trichloroethane						CAS #: 71-55-6			
16.662	16.662	(1.020)	97	1122706	6.22915	6.229	80.00-	120.00	100.00
16.662	16.662	(1.020)	99	711146			13.76-	113.76	63.34
33 Carbon Tetrachloride						CAS #: 56-23-5			
16.883	16.883	(1.034)	119	533920	3.23328	3.233	80.00-	120.00	100.00(R)
16.883	16.883	(1.034)	117	591340			61.49-	161.49	110.75
35 Benzene						CAS #: 71-43-2			
17.214	17.214	(0.967)	78	1509522	4.90967	4.910	80.00-	120.00	100.00
17.214	17.214	(0.967)	77	322924			0.00-	72.07	21.39
36 1,2-Dichloroethane						CAS #: 107-06-2			
17.325	17.325	(0.974)	62	891520	5.96302	5.963	80.00-	120.00	100.00

0996

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
36 1,2-Dichloroethane (continued)									
17.325	17.325	(0.974)	64	279525			0.00- 81.56	31.35	

37 Heptane						CAS #: 142-82-5			
17.435	17.435	(0.980)	43	832141	4.63541	4.635	80.00- 120.00	100.00	
17.435	17.435	(0.980)	57	447152			1.42- 101.42	53.74	
17.435	17.435	(0.980)	100	141204			0.00- 66.93	16.97	

39 Trichloroethene						CAS #: 79-01-6			
18.153	18.153	(1.020)	130	618371	5.72651	5.726	80.00- 120.00	100.00	
18.153	18.153	(1.020)	95	682508			66.40- 166.40	110.37	
18.153	18.153	(1.020)	97	451154			23.45- 123.45	72.96	

40 1,2-Dichloropropane						CAS #: 78-87-5			
18.540	18.540	(1.042)	63	471718	5.32852	5.328	80.00- 120.00	100.00	
18.540	18.540	(1.042)	62	324622			19.57- 119.57	68.82	
18.540	18.540	(1.042)	41	371356			29.62- 129.62	78.72	

41 1,4-Dioxane						CAS #: 123-91-1			
18.650	18.650	(1.048)	88	326099	5.18615	5.186	80.00- 120.00	100.00	
18.650	18.650	(1.048)	58	244967			27.00- 127.00	75.12	
18.650	18.650	(1.048)	57	83991			0.00- 75.47	25.76	

42 Bromodichloromethane						CAS #: 75-27-4			
18.899	18.899	(1.062)	83	993230	4.95937	4.959	80.00- 120.00	100.00	
18.899	18.899	(1.062)	85	641944			16.25- 116.25	64.63	

43 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
19.562	19.562	(1.099)	75	749905	5.57991	5.580	80.00- 120.00	100.00	
19.562	19.562	(1.099)	77	235279			0.00- 80.90	31.37	
19.562	19.534	(1.099)	39	503008			14.61- 114.61	67.08	

44 4-Methyl-2-pentanone						CAS #: 108-10-1			
19.727	19.727	(1.109)	43	932180	4.69387	4.694	80.00- 120.00	100.00	
19.727	19.727	(1.109)	58	350881			0.00- 87.49	37.64	
19.727	19.727	(1.109)	85	156754			0.00- 66.91	16.82	

46 Toluene						CAS #: 108-88-3			
20.004	20.004	(1.124)	91	1690173	4.79835	4.798	80.00- 120.00	100.00	
20.004	20.004	(1.124)	92	1050905			12.22- 112.22	62.18	

47 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
20.363	20.363	(0.920)	75	688002	5.40237	5.402	80.00- 120.00	100.00	
20.363	20.363	(0.920)	77	223166			0.00- 80.24	32.44	
20.363	20.363	(0.920)	39	392013			3.63- 103.63	56.98	

0997

CONCENTRATIONS									
				ON-COL		FINAL			
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
48 1,1,2-Trichloroethane						CAS #: 79-00-5			
20.666	20.666	(0.934)	97	545618	5.46557	5.466	80.00- 120.00	100.00	
20.666	20.666	(0.934)	99	333921			14.81- 114.81	61.20	
20.666	20.666	(0.934)	83	422609			31.40- 131.40	77.46	
49 Tetrachloroethene						CAS #: 127-18-4			
20.804	20.804	(0.940)	166	691767	5.33505	5.335	80.00- 120.00	100.00	
20.804	20.804	(0.940)	129	538752			25.44- 125.44	77.88	
20.804	20.804	(0.940)	131	514589			22.92- 122.92	74.39	
50 2-Hexanone						CAS #: 591-78-6			
20.943	20.942	(0.946)	58	464074	4.71731	4.717	80.00- 120.00	100.00	
20.943	20.942	(0.946)	43	862001			137.44- 237.44	185.75	
20.943	20.942	(0.946)	100	86502			0.00- 68.76	18.64	
51 Dibromochloromethane						CAS #: 124-48-1			
21.246	21.246	(0.960)	129	719664	5.12397	5.124	80.00- 120.00	100.00	
21.246	21.246	(0.960)	208	35151			0.00- 54.14	4.88	
53 1,2-Dibromoethane						CAS #: 106-93-4			
21.467	21.467	(0.970)	107	761969	5.54293	5.543	80.00- 120.00	100.00	
21.467	21.467	(0.970)	109	717937			43.34- 143.34	94.22	
55 Chlorobenzene						CAS #: 108-90-7			
22.158	22.158	(1.001)	112	1155107	5.36634	5.366	80.00- 120.00	100.00	
22.158	22.158	(1.001)	114	374889			0.00- 80.98	32.45	
22.158	22.158	(1.001)	77	803491			18.65- 118.65	69.56	
56 Ethyl Benzene						CAS #: 100-41-4			
22.268	22.268	(1.006)	106	652029	5.27389	5.274	80.00- 120.00	100.00	
22.268	22.268	(1.006)	91	2164953			294.68- 394.68	332.03	
57 m,p-Xylene						CAS #: 108-38-3			
22.434	22.434	(1.014)	106	1524220	10.0801	10.080	80.00- 120.00	100.00	
22.434	22.434	(1.014)	91	3357185			168.06- 268.06	220.26	
58 o-Xylene						CAS #: 95-47-6			
23.069	23.069	(1.042)	106	677114	5.49860	5.498	80.00- 120.00	100.00	
23.069	23.069	(1.042)	91	1589785			189.62- 289.62	234.79	
59 Styrene						CAS #: 100-42-5			
23.097	23.096	(1.044)	104	804720	4.22159	4.222	80.00- 120.00	100.00	
23.097	23.096	(1.044)	78	515662			7.14- 107.14	64.08	
60 Bromoform						CAS #: 75-25-2			
23.483	23.455	(1.061)	173	487826	4.80668	4.807	80.00- 120.00	100.00	

0998

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
60 Bromoform (continued)							
23.483	23.455 (1.061)	171	249454			2.66- 102.66	51.14

64 1,1,2,2-Tetrachloroethane				CAS #: 79-34-5			
24.146	24.146 (1.091)	83	820518	5.59669	5.597	80.00- 120.00	100.00
24.146	24.146 (1.091)	85	532686			15.48- 115.48	64.92

66 4-Ethyltoluene				CAS #: 622-96-8			
24.450	24.450 (1.105)	105	1963776	5.98522	5.985	80.00- 120.00	100.00
24.450	24.450 (1.105)	120	490133			0.00- 75.29	24.96

67 1,3,5-Trimethylbenzene				CAS #: 108-67-8			
24.560	24.560 (1.110)	105	1700423	5.84146	5.841	80.00- 120.00	100.00
24.560	24.560 (1.110)	120	650865			0.00- 89.72	38.28

69 1,2,4-Trimethylbenzene				CAS #: 95-63-6			
25.195	25.195 (1.139)	105	1552663	5.57558	5.576	80.00- 120.00	100.00
25.195	25.195 (1.139)	120	575057			0.00- 87.12	37.04

70 1,3-Dichlorobenzene				CAS #: 541-73-1			
25.775	25.775 (1.165)	146	1156498	5.79305	5.793	80.00- 120.00	100.00
25.775	25.775 (1.165)	148	720170			13.36- 113.36	62.27
25.775	25.775 (1.165)	111	496930			0.00- 93.12	42.97

71 1,4-Dichlorobenzene				CAS #: 106-46-7			
25.941	25.941 (1.172)	146	1147923	5.52081	5.521	80.00- 120.00	100.00
25.941	25.941 (1.172)	148	746019			12.91- 112.91	64.99
25.941	25.941 (1.172)	111	477336			0.00- 90.99	41.58

72 alpha-Chlorotoluene				CAS #: 100-44-7			
26.162	26.162 (1.182)	91	1645515	7.01077	7.011	80.00- 120.00	100.00(R)
26.162	26.162 (1.182)	126	279153			0.00- 66.94	16.96

73 1,2-Dichlorobenzene				CAS #: 95-50-1			
26.604	26.604 (1.202)	146	1013925	5.70861	5.709	80.00- 120.00	100.00
26.604	26.604 (1.202)	148	635930			12.97- 112.97	62.72
26.604	26.604 (1.202)	111	449519			0.00- 94.31	44.33

75 1,2,4-Trichlorobenzene				CAS #: 120-82-1			
29.476	29.476 (1.332)	180	1101174	7.33553	7.336	80.00- 120.00	100.00(R)
29.476	29.476 (1.332)	182	1010141			45.88- 145.88	91.73

76 Hexachlorobutadiene				CAS #: 87-68-3			
29.669	29.669 (1.341)	225	682653	6.59847	6.598	80.00- 120.00	100.00(R)
29.669	29.669 (1.341)	223	441952			13.94- 113.94	64.74

0999

CONCENTRATIONS									
		ON-COL		FINAL					
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
62 Cumene						CAS #:	98-82-8		
23.621	23.621	(1.067)	105	1901316	6.36004	6.360	80.00-	120.00	100.00
23.621	23.621	(1.067)	120	407421			0.00-	72.05	21.43

65 Propylbenzene						CAS #:	103-65-1		
24.284	24.284	(1.097)	91	1705736	4.14646	4.146	80.00-	120.00	100.00
24.284	24.284	(1.097)	120	355471			0.00-	69.13	20.84

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

1000

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd7.i	Calibration Date: 10-FEB-2005
Lab File ID: 7021005.d	Calibration Time: 00:57
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: WW	
Method File: /chem/msd7.i/7-10feb.b/t141J27b.m	
Misc Info: 100mL [5.0ppbv]	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	464988	278993	650983	459857	-1.10
38 1,4-Difluorobenze	2172345	1303407	3041283	2118529	-2.48
54 Chlorobenzene-d5	1516792	910075	2123509	1505814	-0.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
29 Bromochloromethan	16.33	16.00	16.66	16.33	0.00
38 1,4-Difluorobenze	17.79	17.46	18.12	17.79	0.00
54 Chlorobenzene-d5	22.13	21.80	22.46	22.13	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date: 10-FEB-2005 04:42

Client ID: LCS

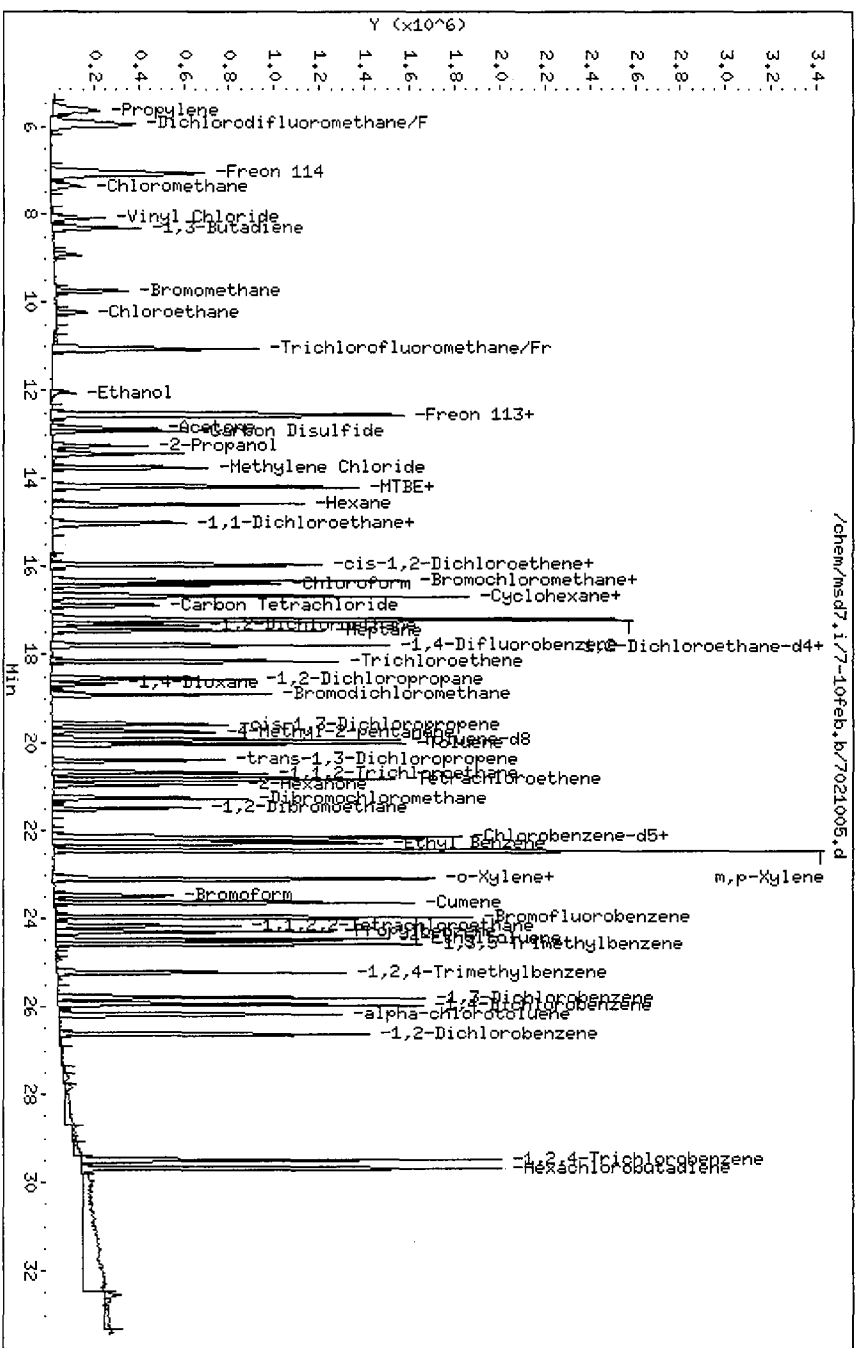
Instrument: msd7.i

Sample Info: #1243-148 [25ppbv]

Operator: MM

Column phase: RTX-624

Column diameter: 0.32



m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	17.32
75	30.0 - 66.0% of mass 95	42.10
95	Base peak, 100.00% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.46
173	Less than 2.0% of mass 174	(0.31) ¹
174	50.0 - 120.0% of mass 95	70.33
175	4.0 - 9.0% of mass 174	(6.85) ¹
176	93.0 - 101.0% of mass 174	(96.70) ¹
177	5.0 - 9.0% of mass 176	(6.25) ²

¹ - value in parenthesis is % mass 174

² - value in parenthesis is % mass 176

Verify 176/174 m/z Ratio: $\frac{1321472}{1366528} \times 100 = 96.70\%$

BFB Injection Date: 2/7/05
 BFB Injection Time: 21:33
 BFB File ID: 7020701
 Tekmar Purge Flow:
 Vacuum:

IS/Std.#: 1245-166	Exp. Date: 6/28/05
BCM: 509696	
1,4-DFB: 2384030	
CB-d5: 1688502	

Verified CCV IS vs ICAL mid-point (-40% D) *file initials*

NOAH Cart #: File #:

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(1061370)}{(509696)} \times \frac{(10)}{(2.05961)} = 10.11$$

File ID: 7020702
Compound: 1,2-DCA
Initials: NL

Reported Result

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
✓	7020701	BFB Time check	843-1953	50.0g	2.0ml	1.40	20	2/7/05	21:33	20	
✓	02	1243-158 (50ppb)	10980	5.0ppb	50ml		20		22:06		CCV
✗	03	1243-163 (200ppb)	94302	5.0ppb	12.5ml		ww		23:59		Bad Load
✓	04	1243-163 (200ppb)	94302	5.0ppb	12.5ml		ww		23:53		CCV Error
✓	05	1243-170 (100ppb)	4154	5.0ppb	25ml		ww	2/8/05	01:00		Good
✓	06	1243-148 (25ppb)	34332	5.0ppb	100ml		ww		02:05		LCS
✓	07	Lab Blank	4290	Humid	500ml		ww		03:05		
✓	08	0502032-06A	32130	7.5" Hg	500ml	1.77	ww		04:02		"E" 2-Propanol
		0.1A	94948	7.0" Hg	500ml	1.75	ww				2nd Load

✗	7020707	System Blank	4290	Humid	20ml	1.00	ww	2/8/05	05:28	ww	
✗	10								6:20	13	
✓	11	System Blank	11676	Humid	500ml	1.00	13	2-8-05	07:25	13	
✓	12	0502032-07A	74948	7.5" Hg	500ml	1.35	13	2-8-05	08:15	NK	"E" flag 2-Propanol
✗	13	0502032-08A	9941	6.5" Hg	500ml	1.71	NK	2-8-05	08:59	NK	R.R. sound
✓	14	System Blank	11290	Humid	500ml	1.00	NK	2-8-05	09:57	NK	
✓	15	0502076-01A	33790	4.0" Hg	500ml	1.65	NK	2-8-05	10:44	NK	"E" flag Ethanol
✓	16	0502076-02A	35259	0.8" Hg	500ml	1.27	NK	2-8-05	11:58	NK	"E" flag Ethanol
✓	17	System Blank	4290	Humid	500ml	1.00	13	2-8-05	12:43	NK	
✓	18	0502076-03A	10985	3.5" Hg	500ml	1.42	NK	2-8-05	13:21	NK	
	189	0502076-04A	10985	3.5" Hg	500ml	1.52	NK	2-8-05		NK	Duplicate

Comments:

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 - 40.0% of mass 95	17.55
75	30.0 - 66.0% of mass 95	42.38
95	Base peak, 100.00% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.50
173	Less than 2.0% of mass 174	(0.51) ¹
174	50.0 - 120.0% of mass 95	68.73
175	4.0 - 9.0% of mass 174	(6.64) ¹
176	93.0 - 101.0% of mass 174	(98.07) ¹
177	5.0 - 9.0% of mass 176	(5.80) ²

¹ - value in parenthesis is % mass 174

² - value in parenthesis is % mass 176

Verify 176/174 m/z Ratio: $\frac{1265152}{128722} \times 100 =$

BFB Injection Date: 2/7/05
 BFB Injection Time: 0001
 BFB File ID: 7020901
 Tekmar Purge Flow:
 Vacuum: 7.7x10⁻⁶ Torr

IS/Std #:	Exp. Date:
BCM 474591	
1,4-DFB 2234295	
CB-d5 4745 2945139 1557243	

Verified CCV IS vs ICAL mid-point (-40% D)

Initials

NOAH Cart #: File #:

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}} = \frac{(1039731)}{(474591)} \times \frac{(10)}{(2.05961)} = 10.637$

Reported Result 10.637

File ID: 7020902
Compound: 1,2-DCldp
Initials: NK

Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	7020901	BFB Tune Check	843-1253	50mg	2.0ml	100	www	2/7/05	20001	www	
2	02	1243-158 (50ppbv)	10786	5.0ppbv	50ml				0048	www	CCV
3	03	1243-163 (200ppbv)	74302	5.0ppbv	12.5ml				0200	www	6nd Lnd
4	04	1243-163 (200ppbv)	74302	5.0ppbv	12.5ml				0337	www	CCV Etoit
5	05	1243-177A (100ppbv)	4154	5.0ppbv	25ml				0431	www	CCV Reman
6	06	1243-148 (25ppbv)	37332	5.0ppbv	100ml				0446	NK	
7	07	Lab Blank	4290	Humid	50ml		TS		1026	NK	Unzipped?
8	08	Lab Blank	4290	Humid	50ml				1123	NK	
9	09	0502032-15A	34335	5.5mg	50ml	1.64			1217	NK	

10	7020910	0502032-14A	34430	5.5mg	50ml	1.64	TS	2/7/05	1257	NK	
11	7020911	-13A	21006	0.4mg	50ml	1.30	NK		1411	NK	
12	7020912	-12A	12711	6.0mg	50ml	1.63	NK		1456	NK	
13	7020913	-11A	10794	6.5mg	50ml	1.71	NK		1537	NK	
14	7020914	-10A	12677	6.5mg	50ml	1.71	NK		1621	NK	
15	7020915	-09A	25275	2.0mg	50ml	1.44	NK		1659	NK	
16	7020916	-09AA	25275	2.0mg	50ml	1.44	NK		1738	NK	
17	7020917	-08A	9941	6.5mg	50ml	1.71	NK		1819	NK	
18	7020918	0502190-01A	431	3.5mg	50ml	1.52	NK		1907	NK	E flng before 2/17/05
19	7020921	0502076-10A	05412	6.5mg	50ml	1.71	NK			NK	2/17/05
20	7020921	System blank		Humid	50ml	1.0	NK		2056	NK	
21	7020920	0502076-10A	05412	6.5mg	50ml	1.71	NK		2056	NK	
22	7020921	0502076-11A	33771	0.5mg	50ml	1.76	NK			NK	
23	7020922										
24											
25											
26											
27											
28											
29											
30											
31											
32											

Comments:

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	8.0 – 40.0% of mass 95	18.13
75	30.0 – 66.0% of mass 95	44.42
95	Base peak, 100.00% relative abundance	100.00
96	5.0 – 9.0% of mass 95	6.72
173	Less than 2.0% of mass 174	(0.48) ¹
174	50.0 – 120.0% of mass 95	73.63
175	4.0 – 9.0% of mass 174	(6.91) ¹
176	93.0 – 101.0% of mass 174	(96.48) ¹
177	5.0 – 9.0% of mass 176	(6.14) ²

¹ - value in parenthesis is % mass 174² - value in parenthesis is % mass 176Verify 176/174 m/z Ratio: $\frac{1164288}{120678} \times 100 =$

BFB Injection Date: 2-10-05
 BFB Injection Time: 0016
 BFB File ID: 7021001
 Tekmar Purge Flow: Z
 Vacuum: Z

IS/S Std. #:	1245-166	Exp. Date:	6/28/05
BCM	464988		
1,4-DFB	272345		
CB-d5	1516792		

Verified CCV IS vs ICAL mid-point (- 40%D) NK
initials

NOAH Cart #: File #:

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(1020932)}{(464988)} \times \frac{(10)}{(2.05961)} = 10.660$$

Reported Result 10.660

File ID:	7021002
Compound:	1,2-DCAH4
Initials:	NK

	Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	7021001	BFB Tune Check	843-1953	Song	2.0ml	1.00	ww	2/10/05	0016	ww	
2	✓	02	1243-158 (50ppbv)	10986	5.0ppbv	50ml	1	1	1	0057	ww	CCV
3	✓	03	1243-163 (20ppbv)	94302	5.0ppbv	12.5ml	1	1	1	0224	ww	CCV Start
4	✓	04	1243-99A (100ppbv)	4157	5.0ppbv	25ml	1	1	1	0320	ww	CCV Retain
5	✓	05	1243-148 (25ppbv)	34332	5.0ppbv	100ml	1	1	1	0442	ww	LCS
6	✓	06	Lab Blank Retain	4290	Humid	500ml	1	1	1	0545	AK	
7	✓	07	0302076-13A	24435	615-SPI	500ml	1.63	AK	2/10/05	1249	NK	E-2-Propanol
8	✓	08	-14A	33989	415-SPI	500ml	1.91	AK	1	1330	NK	E-Acetone/2-Propanol
9	✓	09	System blank	Humid	-	500ml	1.0	NK	1	1434	NK	

10	✓	702100	0502076-15A	23922	0.0 ¹⁴ g	500ml	1.34	NK	2/10/05	1512	NK	'E' flag 2-propanol
11	✓	702101	0502076-16A	34356	0.2 ¹⁴ g	500ml	1.32	NK	2/10/05	1605	NK	'E' flag 2-propanol
12	X	702102	0502076-17A	05359	2.0 ¹⁴ g	500ml	2.00	NK	2/10/05	1654	NK	
13	✓	702103	System blank	Humid	Humid	500ml	1.0	NK	2/10/05	1809	NK	
14	✓	702104	0502076-17A	05359	2.0 ¹⁴ g	1.25ml	5.76	NK	2/10/05	1848	NK	
15	✓	702105	0502032-03A	34415	6.0 ¹⁴ g	500ml	1.68	NK	2/10/05	1929	NK	
16	✓	702106	0502032-01A	33916	8.0 ¹⁴ g	500ml	1.83	NK	2/10/05	2008	NK	'E' flag 2-propanol
17	✓	702107	0502032-02A	33999	7.5 ¹⁴ g	500ml	1.79	NK	2/10/05	2050	NK	
18	X	702108	0502032-04A	10987	6.5 ¹⁴ g	500ml	1.71	NK	2/10/05	2129	NK	bad load
19	✓	702109	0502032-05A	10987	6.5 ¹⁴ g	500ml	1.78	NK	2/10/05	2232	NK	'E' 2-propanol
20		7021020	0502032-05A									NK Load 2/10/05
21	✓	7021020	Lab Blank	4290	Humid	200mL	1.00	ww	2/10/05	2330	ww	
22	✓	7021021	0502032-05A	10777	7.0 ¹⁴ g	500mL	1.75	ww	2/11/05	0009	ww	'E' 2-propanol
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

Comments:

N. C.
Signed

2/11/05
Date

Air Toxics Ltd.

Data file : /chem/msd7.i/7-28jan.b/7012801.d
 Lab Smp Id: Client Smp ID: BFB
 Inj Date : 28-JAN-2005 10:39
 Operator : jeet Inst ID: msd7.i
 Smp Info : #843-1953 BFB-50ng ; BFB; BFB
 Misc Info : 2ul
 Comment :
 Method : /var/chem/msd7.i/7-28jan.b/bfb60.m
 Meth Date : 28-Jan-2005 10:42 Quant Type: ESTD
 Cal Date : Cal File:
 Als bottle: 1 QC Sample: BFB
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 3.50 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	MASS	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4			
5.453	5.442	0.011	95	1509376		100.00- 100.00	100.00
5.453	5.442	0.011	50	286381		15.00- 40.00	18.97
5.453	5.442	0.011	75	666620		30.00- 60.00	44.17
5.453	5.442	0.011	96	93072		5.00- 9.00	6.17
5.453	5.442	0.011	173	6030		0.00- 2.00	0.66
5.453	5.442	0.011	174	909056		50.00- 100.00	60.23
5.453	5.442	0.011	175	65299		5.00- 9.00	7.18
5.453	5.442	0.011	176	866962		95.00- 101.00	95.37
5.453	5.442	0.011	177	57999		5.00- 9.00	6.69

Data File: /chem/msd7.i/7-28jan.b/7012801.d

Page 1

Date : 28-JAN-2005 10:39

Client ID: BFB

Instrument: msd7.i

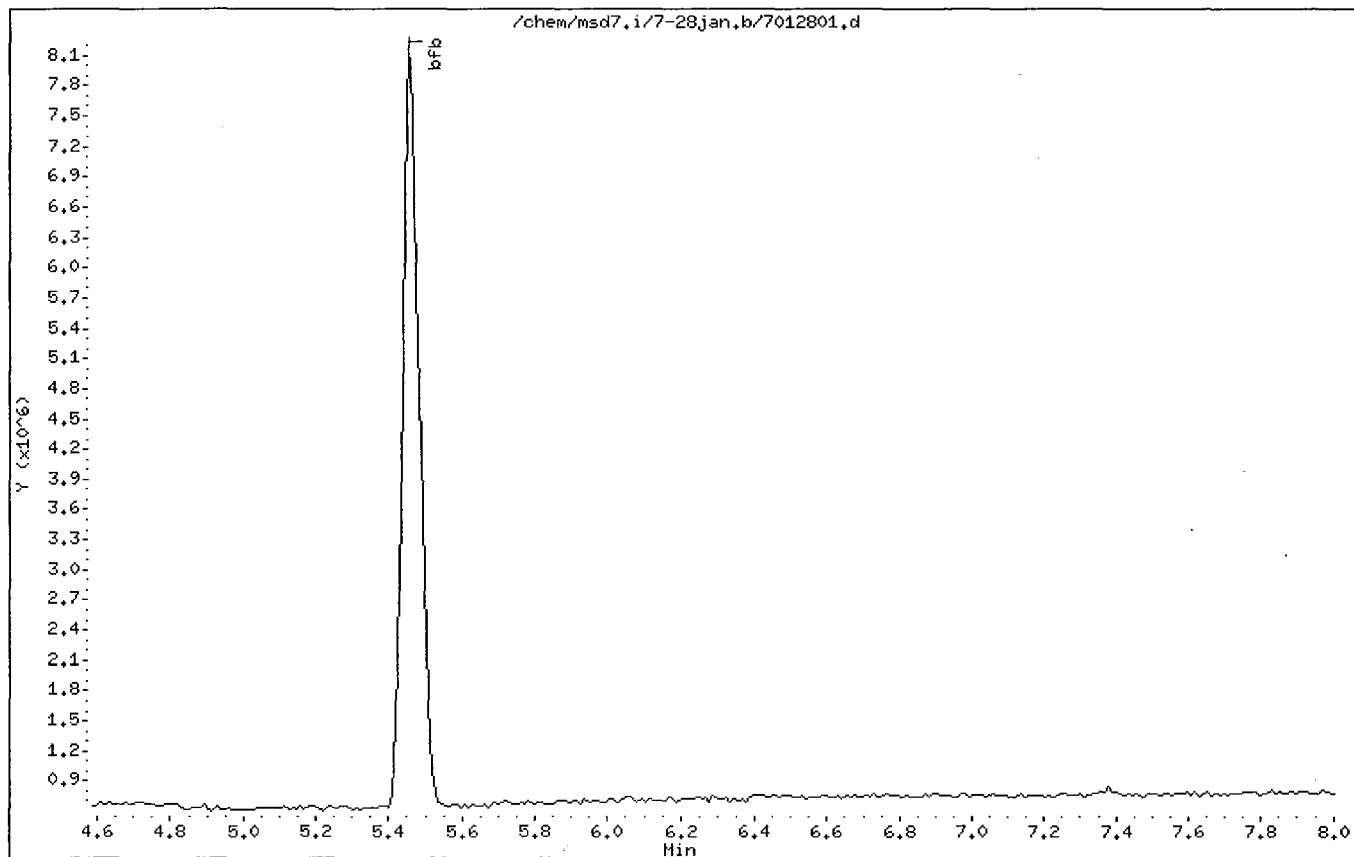
Sample Info: #843-1953 BFB-50ng ; BFB; BFB

Volume Injected (uL): 1.0

Operator: jeet

Column phase:

Column diameter: 2.00



1008

SCOEPA00032680

Date : 28-JAN-2005 10:39

Client ID: BFB

Instrument: msd7.i

Sample Info: #843-1953 BFB-50ng ; BFB; BFB

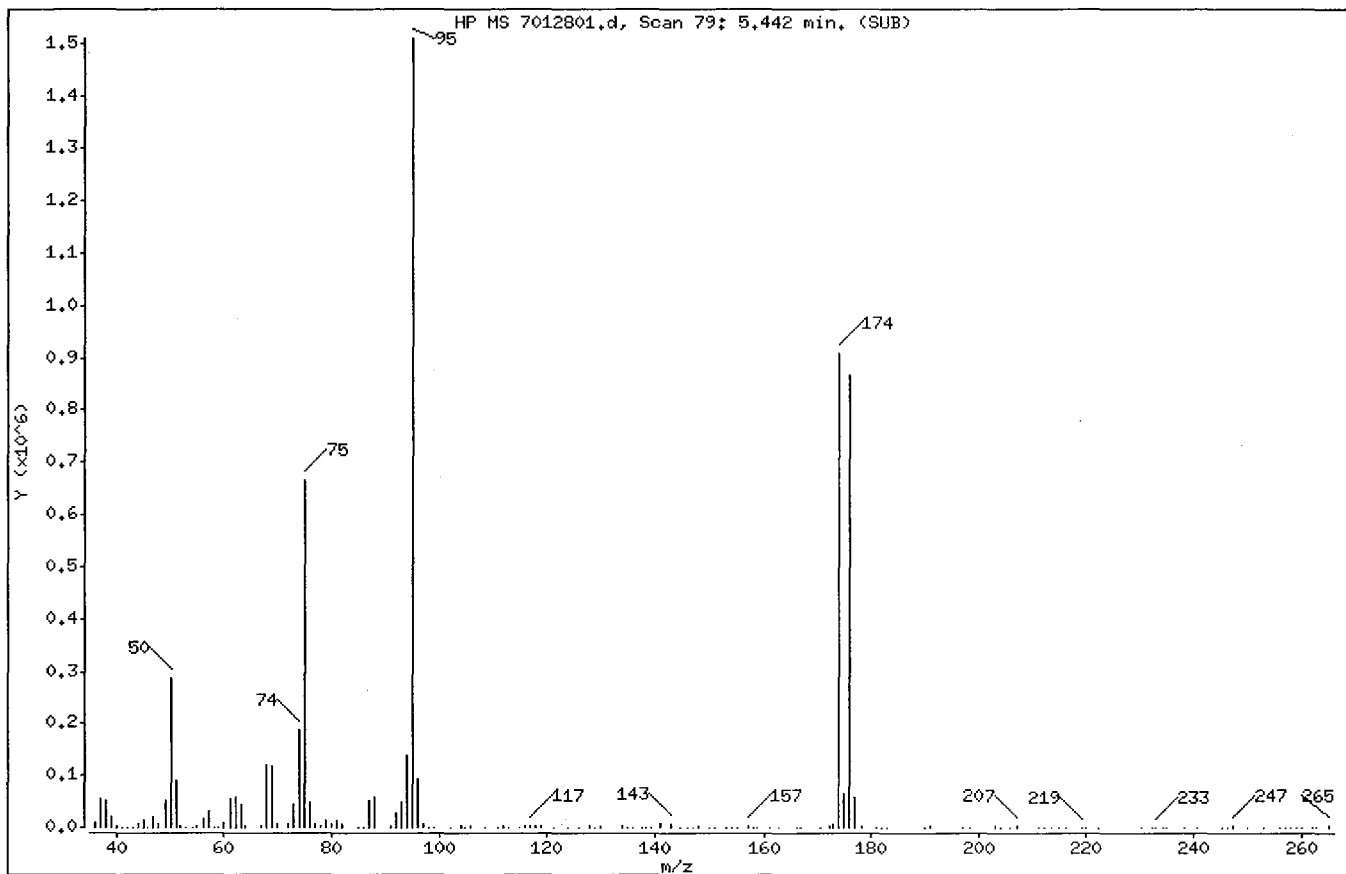
Volume Injected (uL): 1.0

Operator: jeet

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.97
75	30.00 - 60.00% of mass 95	44.17
96	5.00 - 9.00% of mass 95	6.17
173	Less than 2.00% of mass 174	0.40 (0.66)
174	50.00 - 100.00% of mass 95	60.23
175	5.00 - 9.00% of mass 174	4.33 (7.18)
176	95.00 - 101.00% of mass 174	57.44 (95.37)
177	5.00 - 9.00% of mass 176	3.84 (6.69)

Date : 28-JAN-2005 10:39

Client ID: BFB

Instrument: msd7.i

Sample Info: #843-1953 BFB-50ng ; BFB; BFB

Volume Injected (uL): 1.0

Operator: jeet

Column phase:

Column diameter: 2.00

Data File: 7012801.d
Spectrum: HP MS 7012801.d, Scan 79: 5.442 min. (SUB)
Location of Maximum: 95.10
Number of points: 147

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	9914	76.10	49296	129.00	968	190.10	1038
37.10	53968	77.10	7639	130.00	4335	191.00	2416
38.10	53520	78.10	2120	134.00	2929	197.20	327
39.10	19896	79.00	13907	135.10	1507	198.50	374
40.10	2163	80.00	6765	136.10	949	203.00	2501
41.10	45	81.00	15198	137.60	907	204.20	541
42.20	217	81.90	5568	138.30	26	205.90	137
43.10	689	84.90	63	139.40	796	207.10	3056
44.10	5369	86.00	764	141.00	6402	211.10	224
45.00	13353	87.00	53336	143.00	6492	212.10	170
45.90	623	88.00	57512	144.90	704	213.40	124
47.00	21616	91.00	2987	146.10	778	214.90	348
48.00	7574	92.00	28456	147.00	1146	216.00	676
49.10	50320	93.10	47112	148.00	2430	219.10	1675
50.10	286336	94.10	139328	150.00	351	220.00	53
51.10	89176	95.10	1509376	151.10	270	222.30	169
52.00	3479	96.00	93072	153.00	1263	230.10	385
53.00	183	97.00	5623	154.00	588	232.10	401
54.10	717	98.00	1201	155.00	971	233.00	1272
55.00	4696	99.00	223	157.00	2153	234.10	399
56.10	16624	102.10	804	158.00	500	235.00	236
57.10	32760	104.00	4526	158.90	814	238.20	273
58.10	815	105.00	221	161.00	652	240.70	36
59.00	444	106.00	4188	163.00	485	245.30	165
60.00	11492	108.60	1163	166.10	183	246.20	183
61.10	56160	110.90	110	167.00	98	247.20	1834
62.10	57600	112.00	1932	170.70	634	250.00	275
63.10	44640	113.00	833	172.20	1881	253.10	1184
64.00	4812	115.00	716	173.00	6030	256.00	485
67.00	2325	116.00	1768	174.00	909056	257.00	907
68.10	120920	117.00	4915	175.00	65296	258.10	157
69.00	119040	118.00	2396	176.00	866944	259.00	278
70.00	8012	119.00	3397	177.00	57992	260.10	232
72.00	5484	121.10	479	178.10	4182	262.10	492
73.10	43784	124.00	839	181.00	702	262.90	73

Data File: /chem/msd7.i/7-28jan.b/7012801.d

Page 4

Date : 28-JAN-2005 10:39

Client ID: BFB

Instrument: msd7.i

Sample Info: #843-1953 BFB-50ng ; BFB; BFB

Volume Injected (uL): 1.0

Operator: jeet

Column phase:

Column diameter: 2.00

Data File: 7012801.d

Spectrum: HP MS 7012801.d, Scan 79: 5.442 min. (SUB)

Location of Maximum: 95.10

Number of points: 147

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.10	188736	126.00	79	182.00	218	265.10	3626
75.10	666560	128.10	3619	183.00	628		

Air Toxics Ltd.

Data file : /var/chem/msd7.i/7-31jan.b/7013101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 31-JAN-2005 13:02
Operator : NK Inst ID: msd7.i
Smp Info : BFB Tune Check #843-1953
Misc Info : 2.0ul 50ng
Comment :
Method : /var/chem/msd7.i/7-31jan.b/bfb60.m
Meth Date : 31-Jan-2005 13:05 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	MASS	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4			
5.519	5.442	0.077	95	1833314		100.00- 100.00	100.00
5.519	5.442	0.077	50	327973		15.00- 40.00	17.89
5.519	5.442	0.077	75	779231		30.00- 60.00	42.50
5.519	5.442	0.077	96	119601		5.00- 9.00	6.52
5.519	5.442	0.077	173	6836		0.00- 2.00	0.56
5.519	5.442	0.077	174	1229952		50.00- 100.00	67.09
5.519	5.442	0.077	175	81816		5.00- 9.00	6.65
5.519	5.442	0.077	176	1183457		95.00- 101.00	96.22
5.519	5.442	0.077	177	73471		5.00- 9.00	6.21

Data File: /var/chem/msd7.i/7-31jan.b/7013101.d

Page 1

Date : 31-JAN-2005 13:02

Client ID: BFB

Instrument: msd7.i

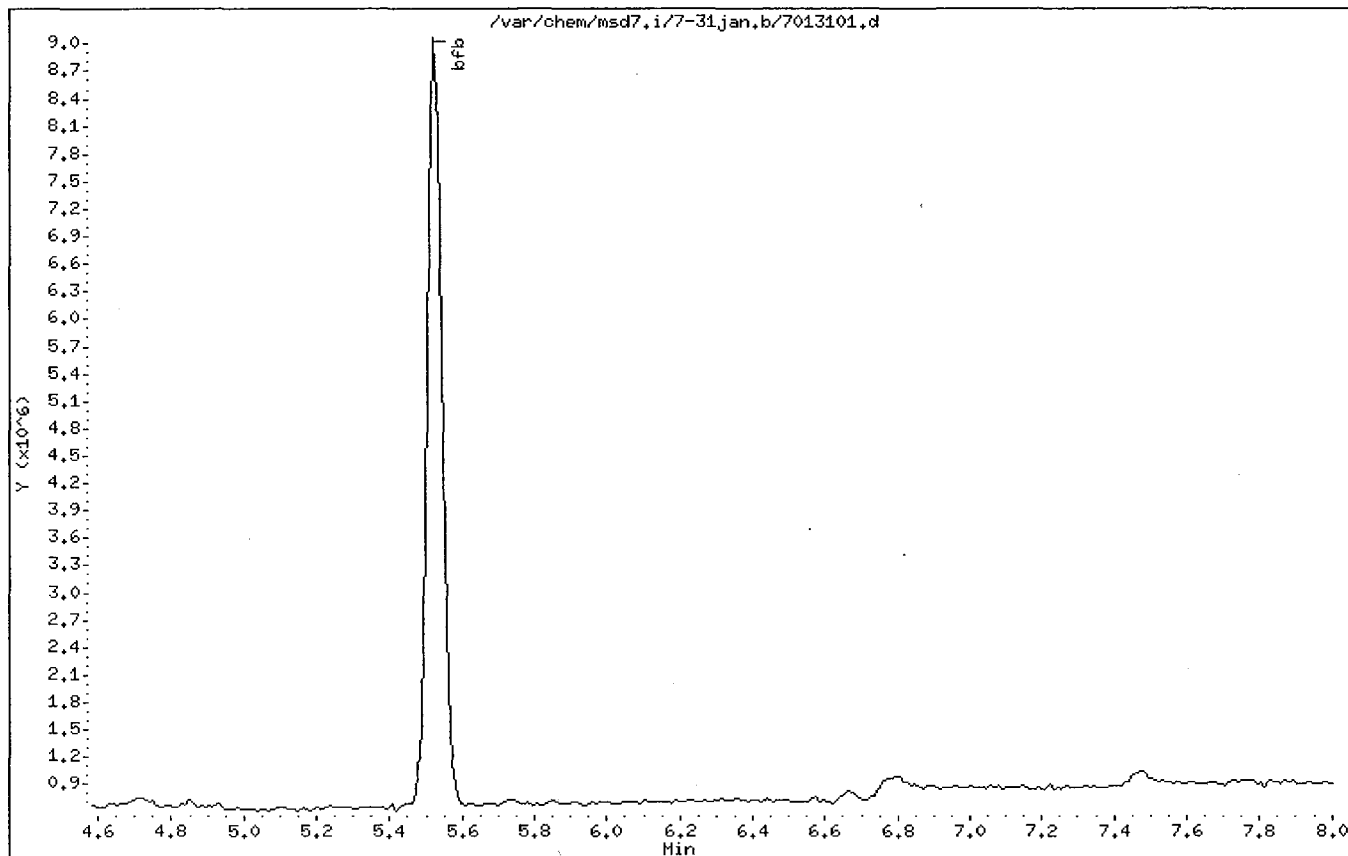
Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: NK

Column phase:

Column diameter: 2.00



1013

SCOEPA00032685

Date : 31-JAN-2005 13:02

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

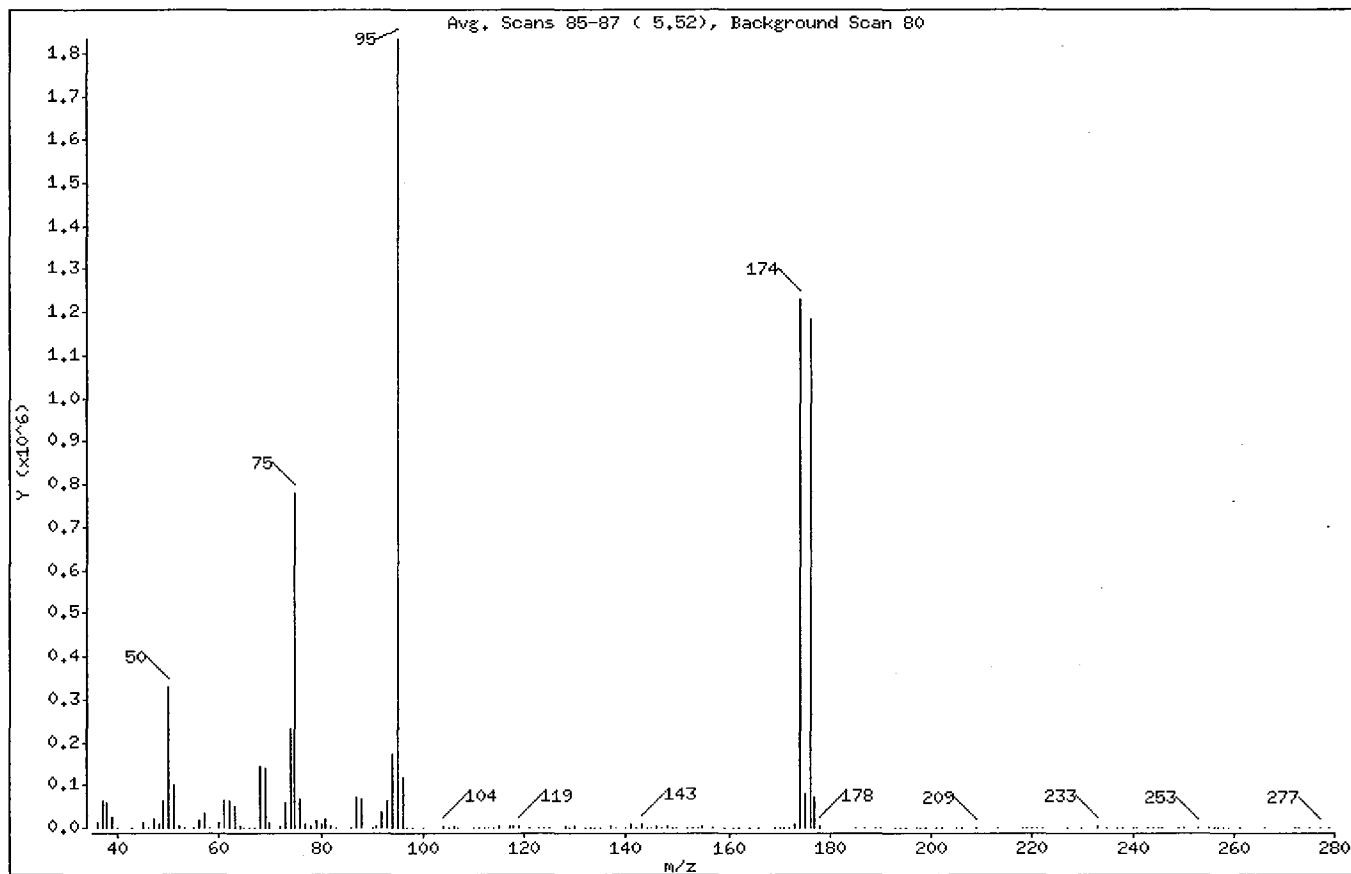
Volume Injected (uL): 1.0

Operator: NK

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.89
75	30.00 - 60.00% of mass 95	42.50
96	5.00 - 9.00% of mass 95	6.52
173	Less than 2.00% of mass 174	0.37 (0.56)
174	50.00 - 100.00% of mass 95	67.09
175	5.00 - 9.00% of mass 174	4.46 (6.65)
176	95.00 - 101.00% of mass 174	64.55 (96.22)
177	5.00 - 9.00% of mass 176	4.01 (6.21)

Date : 31-JAN-2005 13:02

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: NK

Column phase:

Column diameter: 2.00

Data File: 7013101.d

Spectrum: Avg. Scans 85-87 (5.52), Background Scan 80

Location of Maximum: 95.00

Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	10925	83.00	390	141.00	7886	202.00	623
37.00	61736	86.00	837	142.00	1338	205.00	838
38.00	60048	87.00	69952	143.00	9104	206.00	615
39.00	24616	88.00	67496	144.00	1100	209.00	1652
40.00	446	90.00	444	145.00	912	213.00	61
43.00	766	91.00	2598	146.00	2603	218.00	92
45.00	11357	92.00	38968	147.00	1855	219.00	796
46.00	397	93.00	62408	148.00	3550	220.00	87
47.00	22696	94.00	173120	149.00	656	221.00	1449
48.00	8198	95.00	1832960	150.00	1624	222.00	418
49.00	63160	96.00	119600	152.00	489	227.00	405
50.00	327936	97.00	1500	153.00	1209	230.00	73
51.00	99808	98.00	182	154.00	1358	233.00	2400
52.00	4938	100.00	211	155.00	2910	235.00	100
53.00	315	104.00	5471	157.00	1946	237.00	133
55.00	1848	105.00	1412	159.00	1323	238.00	18
56.00	16616	106.00	4081	161.00	1737	240.00	210
57.00	33960	107.00	591	162.00	23	241.00	173
58.00	1702	110.00	511	164.00	149	243.00	122
60.00	10906	111.00	722	166.00	163	244.00	352
61.00	63288	112.00	247	169.00	858	245.00	147
62.00	63440	113.00	585	170.00	567	246.00	252
63.00	48856	114.00	128	171.00	1001	249.00	101
64.00	2853	115.00	2461	172.00	532	250.00	1378
65.00	1362	117.00	4225	173.00	6836	253.00	2104
66.00	640	118.00	3224	174.00	1229824	255.00	232
67.00	1075	119.00	6108	175.00	81816	256.00	63
68.00	142848	121.00	53	176.00	1183232	257.00	130
69.00	140608	123.00	942	177.00	73464	258.00	359
70.00	11222	124.00	684	178.00	2487	259.00	268
72.00	3411	125.00	511	185.00	343	261.00	275
73.00	58960	128.00	2933	187.00	590	266.00	332
74.00	231232	129.00	1359	189.00	1281	272.00	566
75.00	779200	130.00	4504	190.00	519	273.00	187
76.00	68568	132.00	1179	193.00	287	275.00	86

Data File: /var/chem/msd7.i/7-31jan.b/7013101.d

Page 4

Date : 31-JAN-2005 13:02

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: NK

Column phase:

Column diameter: 2.00

Data File: 7013101.d

Spectrum: Avg. Scans 85-87 (5.52), Background Scan 80

Location of Maximum: 95.00

Number of points: 160

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	6620	133.00	1453	194.00	1767	277.00	580
78.00	2419	134.00	1615	195.00	863	279.00	354
79.00	18224	135.00	564	197.00	225		
80.00	6367	137.00	2499	198.00	255		
81.00	21568	138.00	109	199.00	160		
82.00	3607	140.00	334	201.00	225		

1016

SCOEPA00032688

Air Toxics Ltd.

Data file : /var/chem/msd7.i/7-04feb.b/7020401.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 04-FEB-2005 03:34
Operator : WW Inst ID: msd7.i
Smp Info : BFB Tune Check #843-1953
Misc Info : 2.0uL 50ng
Comment :
Method : /var/chem/msd7.i/7-04feb.b/bfb60.m
Meth Date : 04-Feb-2005 03:37 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
				ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE (ug/L)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4			
5.595	5.442	0.153	95	1958776		100.00- 100.00	100.00
5.595	5.442	0.153	50	343111		15.00- 40.00	17.52
5.595	5.442	0.153	75	835948		30.00- 60.00	42.68
5.595	5.442	0.153	96	125126		5.00- 9.00	6.39
5.595	5.442	0.153	173	7039		0.00- 2.00	0.52
5.595	5.442	0.153	174	1360042		50.00- 100.00	69.43
5.595	5.442	0.153	175	94032		5.00- 9.00	6.91
5.595	5.442	0.153	176	1318929		95.00- 101.00	96.98
5.595	5.442	0.153	177	81177		5.00- 9.00	6.15

1017

Data File: /var/chem/msd7.i/7-04feb.b/7020401.d

Page 1

Date : 04-FEB-2005 03:34

Client ID: BFB

Instrument: msd7.i

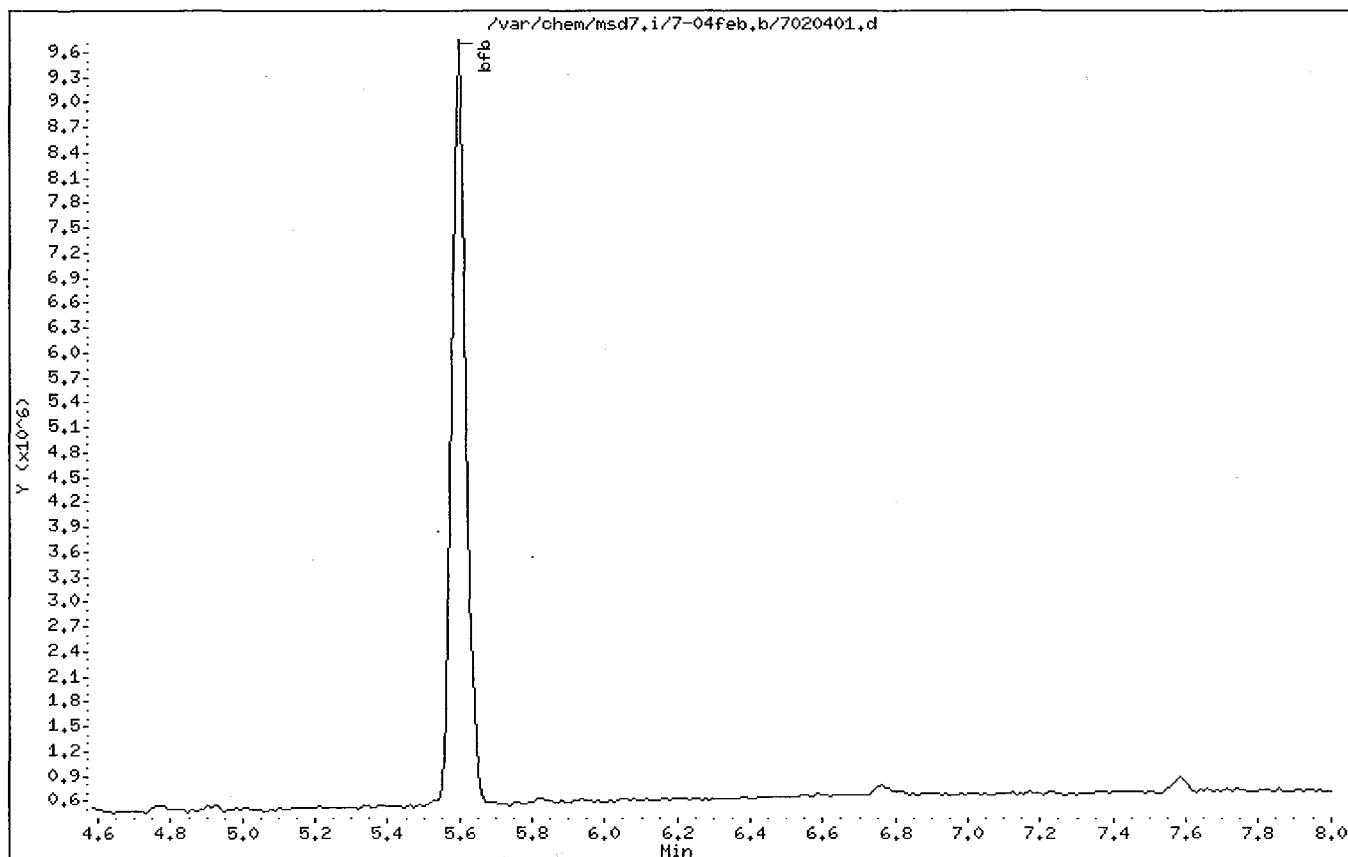
Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 2.00



1018

SCOEPA00032690

Date : 04-FEB-2005 03:34

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

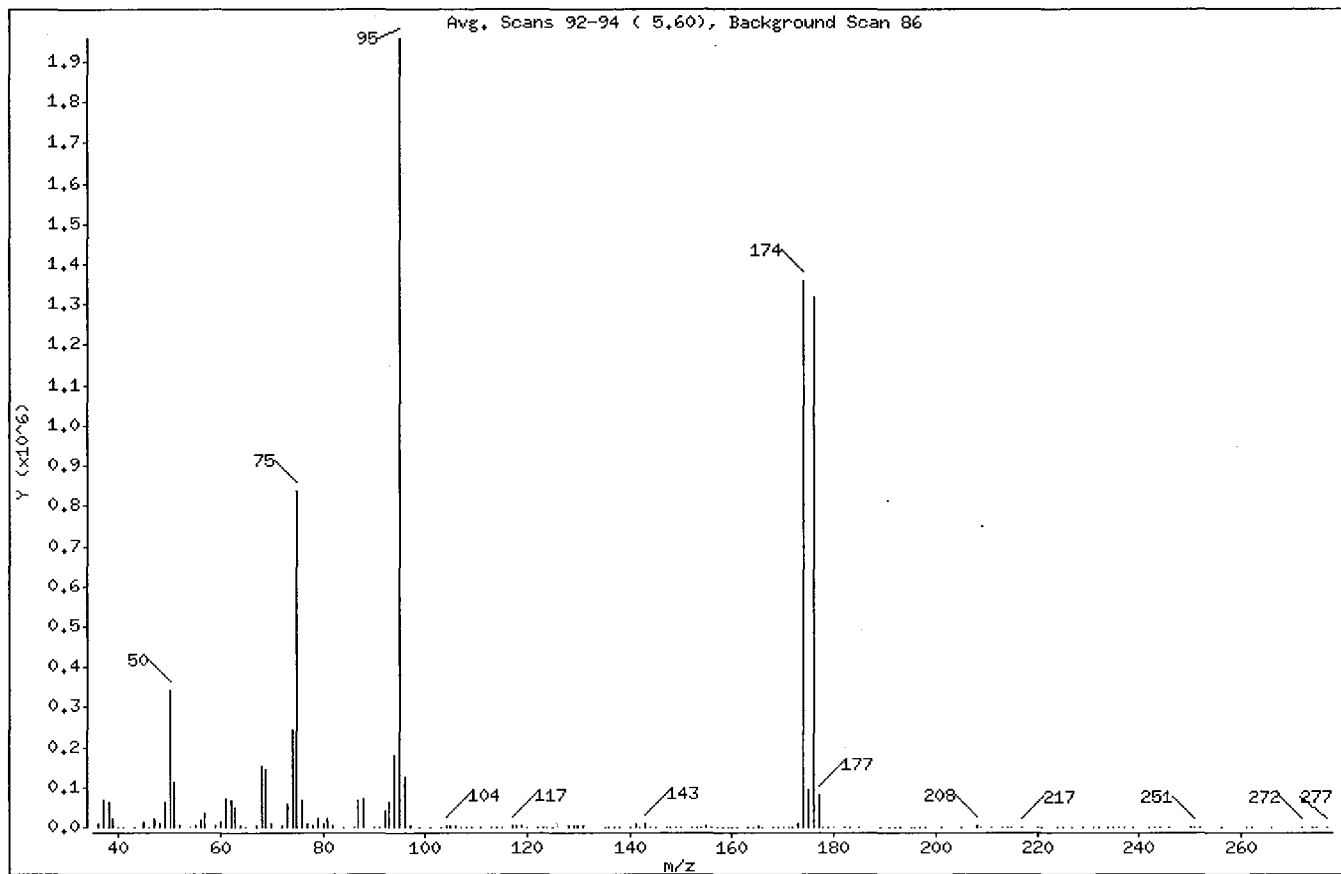
Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.52
75	30.00 - 60.00% of mass 95	42.68
96	5.00 - 9.00% of mass 95	6.39
173	Less than 2.00% of mass 174	0.36 (0.52)
174	50.00 - 100.00% of mass 95	69.43
175	5.00 - 9.00% of mass 174	4.80 (6.91)
176	95.00 - 101.00% of mass 174	67.33 (96.98)
177	5.00 - 9.00% of mass 176	4.14 (6.15)

Date : 04-FEB-2005 03:34

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: MW

Column phase:

Column diameter: 2.00

Data File: 7020401.d
Spectrum: Avg. Scans 92-94 (5.60), Background Scan 86
Location of Maximum: 95.00
Number of points: 167

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	11211	86.00	868	142.00	2202	195.00	187
37.00	68072	87.00	69584	143.00	10432	196.00	441
38.00	61472	88.00	70544	144.00	1319	197.00	511
39.00	24080	90.00	483	145.00	614	198.00	76
40.00	929	91.00	1807	147.00	1314	201.00	43
41.00	215	92.00	41488	148.00	1153	205.00	94
43.00	762	93.00	62032	149.00	1858	208.00	4469
45.00	12909	94.00	181440	150.00	1697	209.00	1449
46.00	482	95.00	1958400	152.00	778	211.00	262
47.00	24568	96.00	125120	153.00	659	213.00	71
48.00	6888	97.00	4298	154.00	20	214.00	68
49.00	65136	99.00	42	155.00	2942	215.00	50
50.00	343104	101.00	295	156.00	594	217.00	743
51.00	111592	103.00	683	157.00	1453	220.00	142
52.00	3312	104.00	5529	158.00	796	221.00	455
54.00	378	105.00	3989	159.00	298	224.00	109
55.00	3121	106.00	4492	160.00	467	225.00	178
56.00	19160	107.00	276	161.00	492	227.00	417
57.00	36504	108.00	1435	163.00	131	229.00	152
59.00	2448	109.00	790	164.00	1277	231.00	142
60.00	12938	111.00	1465	165.00	2874	232.00	657
61.00	72680	113.00	588	166.00	375	234.00	479
62.00	68680	114.00	134	168.00	380	235.00	94
63.00	48624	115.00	274	169.00	358	236.00	162
64.00	5676	117.00	6597	170.00	824	237.00	297
65.00	158	118.00	4324	171.00	144	239.00	608
67.00	3793	119.00	5027	172.00	895	242.00	117
68.00	151552	120.00	400	173.00	7039	243.00	235
69.00	143552	122.00	90	174.00	1359872	244.00	337
70.00	10266	123.00	126	175.00	94032	246.00	200
72.00	4855	124.00	645	176.00	1318912	250.00	819
73.00	57800	125.00	435	177.00	81176	251.00	923
74.00	242624	128.00	3613	178.00	876	252.00	167
75.00	835904	129.00	2330	179.00	204	256.00	3
76.00	69440	130.00	4530	180.00	419	261.00	683

Data File: /var/chem/msd7.i/7-04feb.b/7020401.d

Page 4

Date : 04-FEB-2005 03:34

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 2.00

Data File: 7020401.d

Spectrum: Avg. Scans 92-94 (5.60), Background Scan 86

Location of Maximum: 95.00

Number of points: 167

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	8794	131.00	2964	182.00	66	262.00	75
78.00	5209	135.00	641	183.00	144	266.00	362
79.00	20520	136.00	734	185.00	16	272.00	1010
80.00	6762	137.00	2231	189.00	304	274.00	119
81.00	21568	138.00	72	191.00	283	275.00	125
82.00	4273	140.00	626	192.00	773	277.00	80
84.00	76	141.00	10372	193.00	391		

1021

SCOEPA00032693

Air Toxics Ltd.

Data file : /var/chem/msd7.i/7-07feb.b/7020701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 07-FEB-2005 21:33
Operator : BD Inst ID: msd7.i
Smp Info : BFB Tune Check #843-1953
Misc Info : 2.0uL [50ng]
Comment :
Method : /var/chem/msd7.i/7-07feb.b/bfb60.m
Meth Date : 07-Feb-2005 21:35 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.36000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.36000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	===	=====	=====	=====	=====	=====	
1 bfb				CAS #: 460-00-4					
5.463	5.442	0.021	95	1943470			100.00- 100.00	100.00	
5.463	5.442	0.021	50	346282			15.00- 40.00	17.82	
5.463	5.442	0.021	75	817994			30.00- 60.00	42.09	
5.463	5.442	0.021	96	125576			5.00- 9.00	6.46	
5.463	5.442	0.021	173	4301			0.00- 2.00	0.31	
5.463	5.442	0.021	174	1366881			50.00- 100.00	70.33	
5.463	5.442	0.021	175	93552			5.00- 9.00	6.84	
5.463	5.442	0.021	176	1321562			95.00- 101.00	96.68	
5.463	5.442	0.021	177	82607			5.00- 9.00	6.25	

Data File: /chem/msd7.i/7-07feb,b/7020701.d

Page 1

Date : 07-FEB-2005 21:33

Client ID: BFB

Instrument: msd7.i

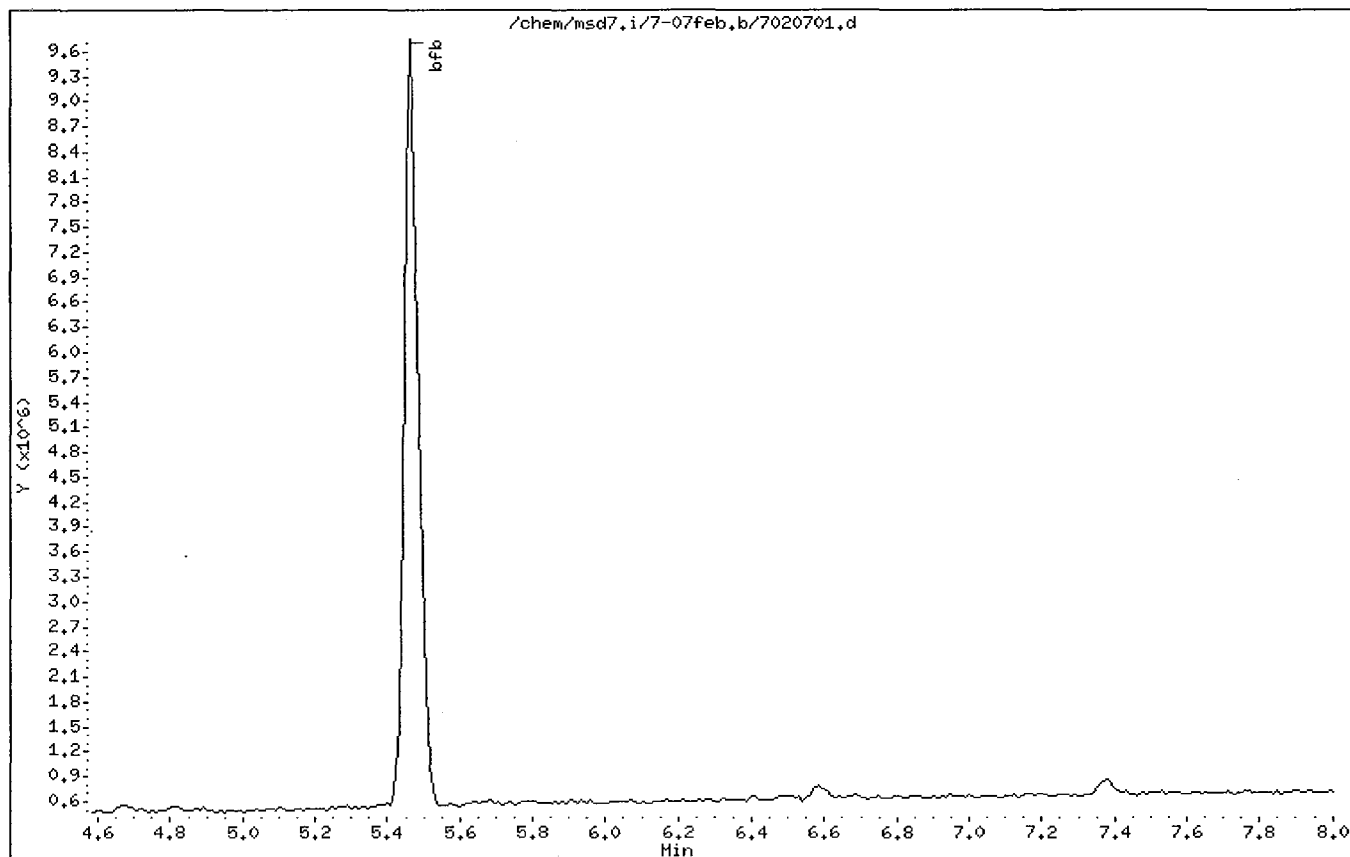
Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: BD

Column phase:

Column diameter: 2.00



1023

SCOEPA00032695

Date : 07-FEB-2005 21:33

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

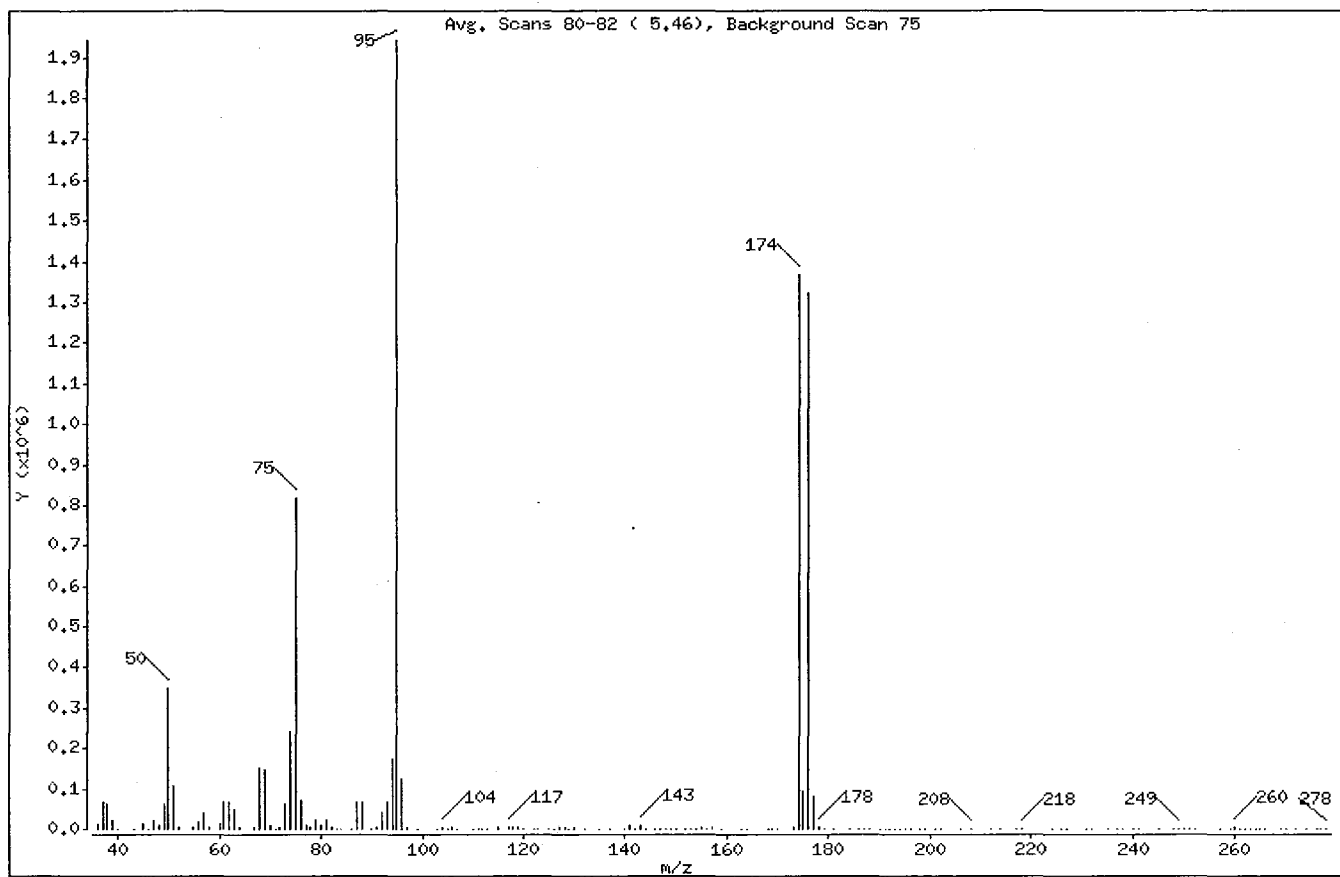
Volume Injected (uL): 1.0

Operator: BD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.82
75	30.00 - 60.00% of mass 95	42.09
96	5.00 - 9.00% of mass 95	6.46
173	Less than 2.00% of mass 174	0.22 (0.31)
174	50.00 - 100.00% of mass 95	70.33
175	5.00 - 9.00% of mass 174	4.81 (6.84)
176	95.00 - 101.00% of mass 174	68.00 (96.68)
177	5.00 - 9.00% of mass 176	4.25 (6.25)

Date : 07-FEB-2005 21:33

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: BD

Column phase:

Column diameter: 2.00

Data File: 7020701.d
Spectrum: Avg. Scans 80-82 (5.46), Background Scan 75
Location of Maximum: 95.00
Number of points: 161

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	11297	86.00	1198	144.00	684	206.00	751
37.00	65048	87.00	68240	146.00	1642	208.00	909
38.00	62416	88.00	67920	147.00	419	212.00	113
39.00	22872	90.00	677	148.00	1330	214.00	51
40.00	1549	91.00	2811	149.00	1113	217.00	556
43.00	363	92.00	40320	150.00	26	218.00	754
45.00	15512	93.00	67720	152.00	267	224.00	112
46.00	660	94.00	175104	153.00	507	226.00	67
47.00	23736	95.00	1943040	154.00	570	227.00	108
48.00	8071	96.00	125576	155.00	3971	231.00	140
49.00	62832	97.00	3593	156.00	266	232.00	448
50.00	346240	99.00	258	157.00	2348	235.00	266
51.00	106128	103.00	667	159.00	1378	237.00	296
52.00	4051	104.00	5068	163.00	310	238.00	526
55.00	2348	105.00	1852	164.00	327	240.00	442
56.00	18928	106.00	3959	168.00	96	241.00	353
57.00	40352	107.00	2104	169.00	22	245.00	171
58.00	2248	110.00	395	170.00	549	248.00	731
60.00	13002	111.00	1001	173.00	4301	249.00	1876
61.00	67120	112.00	433	174.00	1366528	250.00	191
62.00	65416	113.00	402	175.00	93552	251.00	1495
63.00	47736	115.00	4186	176.00	1321472	252.00	580
64.00	3830	117.00	6565	177.00	82600	257.00	214
67.00	2932	118.00	4708	178.00	3142	259.00	280
68.00	151616	119.00	3992	179.00	557	260.00	4742
69.00	146880	120.00	451	181.00	59	261.00	888
70.00	10077	122.00	708	184.00	56	262.00	337
71.00	353	123.00	576	186.00	85	263.00	42
72.00	4877	125.00	292	187.00	459	264.00	197
73.00	61744	126.00	1468	188.00	257	265.00	361
74.00	242752	127.00	2414	190.00	1032	266.00	99
75.00	817984	128.00	2959	191.00	667	269.00	85
76.00	71760	129.00	1280	192.00	549	270.00	91
77.00	7024	130.00	4606	193.00	1512	272.00	298
78.00	3799	132.00	1072	194.00	1008	274.00	166

Data File: /chem/msd7.i/7-07feb.b/7020701.d

Page 4

Date : 07-FEB-2005 21:33

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: BD

Column phase:

Column diameter: 2.00

Data File: 7020701.d

Spectrum: Avg. Scans 80-82 (5.46), Background Scan 75

Location of Maximum: 95.00

Number of points: 161

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	20208	135.00	894	195.00	2	276.00	138
80.00	7262	137.00	853	196.00	350	277.00	164
81.00	20400	140.00	492	198.00	67	278.00	108
82.00	5898	141.00	10569	199.00	176		
83.00	1164	142.00	1153	201.00	458		
84.00	2	143.00	11133	202.00	398		

Air Toxics Ltd.

Data file : /var/chem/msd7.i/7-09feb.b/7020901.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 09-FEB-2005 00:01
Operator : WW Inst ID: msd7.i
Smp Info : BFB Tune Check #843-1953
Misc Info : 2.0uL 50ng
Comment :
Method : /var/chem/msd7.i/7-09feb.b/bfb60.m
Meth Date : 09-Feb-2005 00:04 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.41000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.41000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
1 bfb CAS #: 460-00-4									
5.431	5.442	-0.011	95	1876694			100.00- 100.00	100.00	
5.431	5.442	-0.011	50	329372			15.00- 40.00	17.55	
5.431	5.442	-0.011	75	793370			30.00- 60.00	42.27	
5.431	5.442	-0.011	96	122000			5.00- 9.00	6.50	
5.431	5.442	-0.011	173	6517			0.00- 2.00	0.51	
5.431	5.442	-0.011	174	1290019			50.00- 100.00	68.74	
5.431	5.442	-0.011	175	85592			5.00- 9.00	6.63	
5.431	5.442	-0.011	176	1265394			95.00- 101.00	98.09	
5.431	5.442	-0.011	177	73441			5.00- 9.00	5.80	

Data File: /chem/msd7.i/7-09feb.b/7020901.d

Page 1

Date : 09-FEB-2005 00:01

Client ID: BFB

Instrument: msd7.i

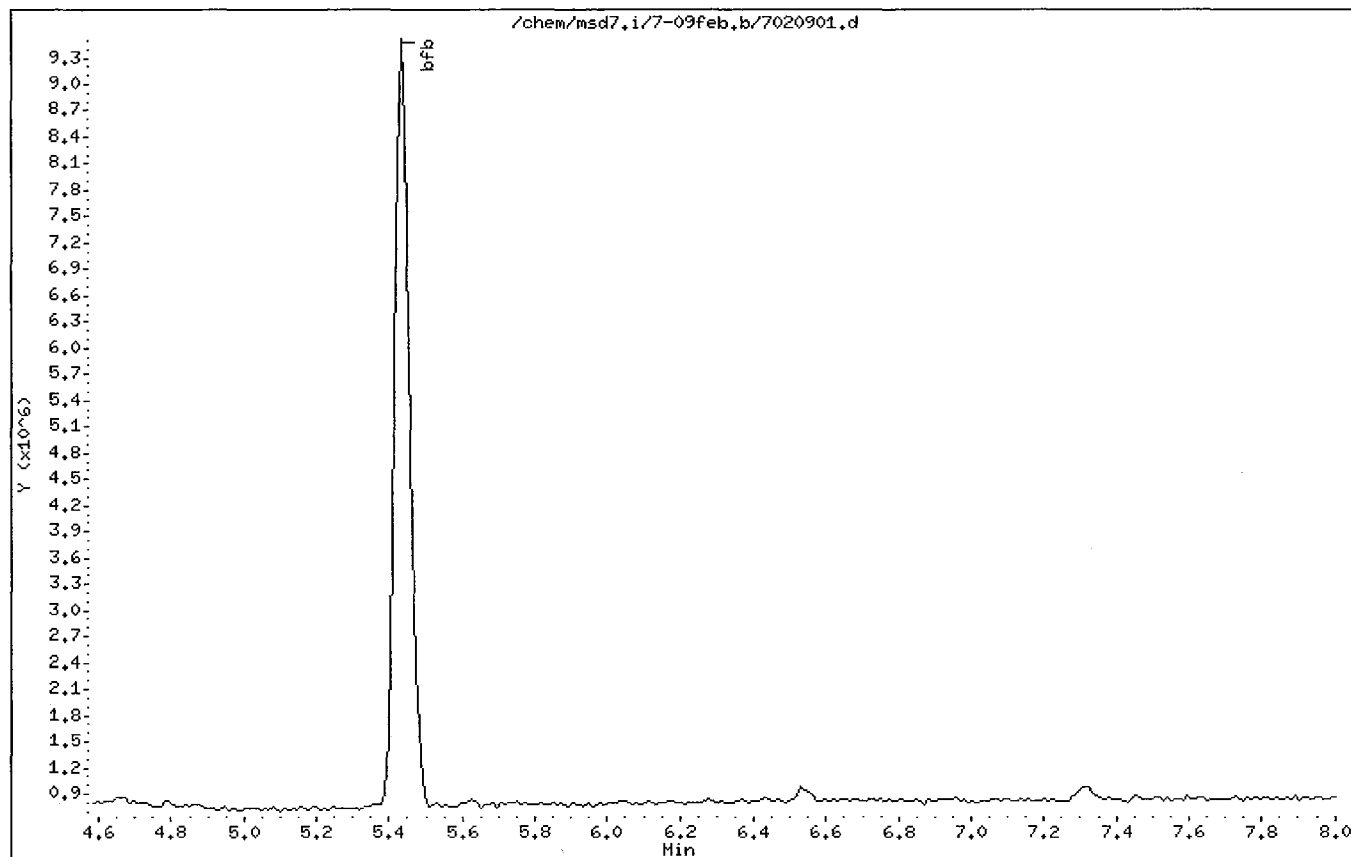
Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 0.32



1028

SCOEP00032700

Date : 09-FEB-2005 00:01

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

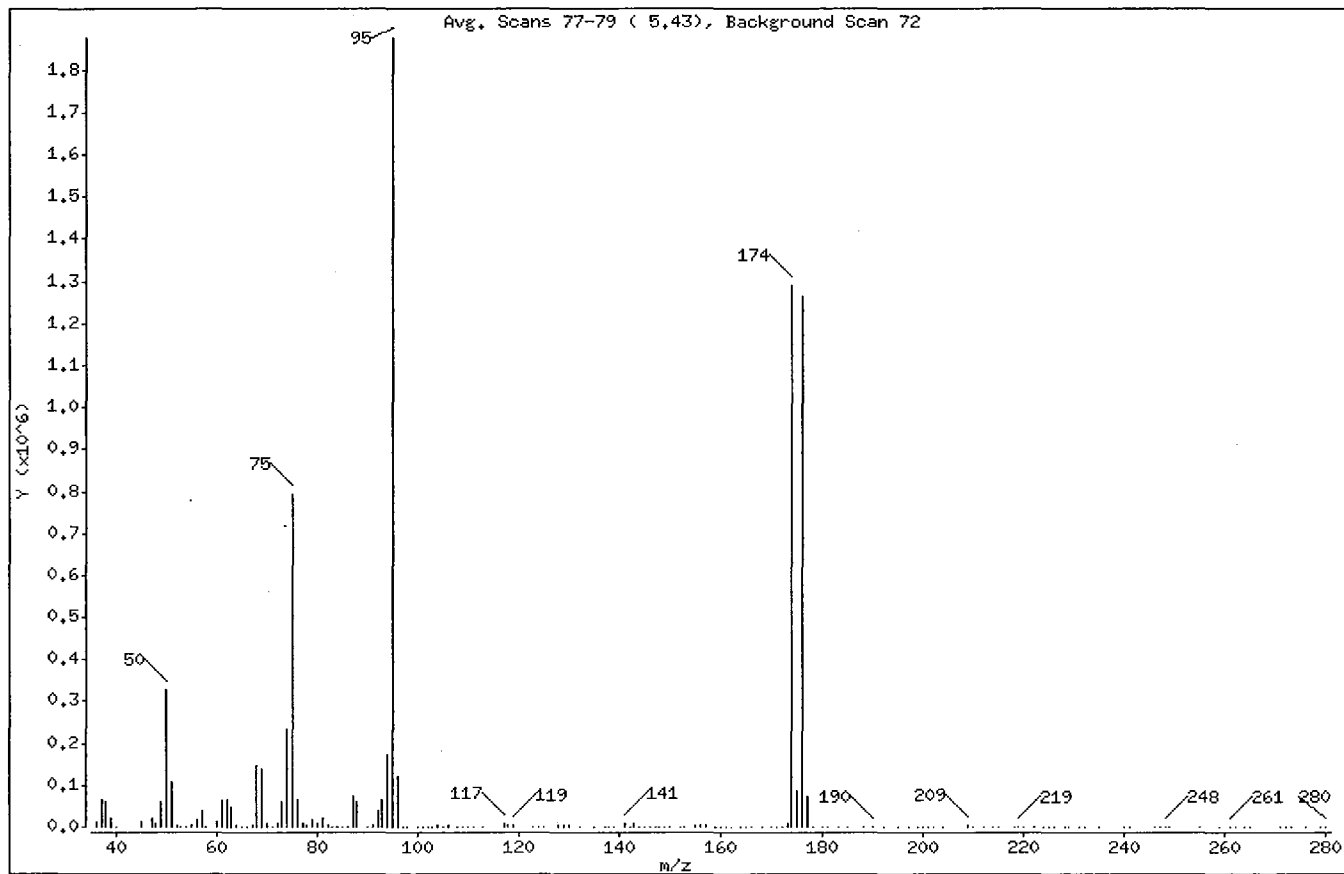
Volume Injected (uL): 1.0

Operator: MM

Column phase:

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.55
75	30.00 - 60.00% of mass 95	42.27
96	5.00 - 9.00% of mass 95	6.50
173	Less than 2.00% of mass 174	0.35 (0.51)
174	50.00 - 100.00% of mass 95	68.74
175	5.00 - 9.00% of mass 174	4.56 (6.63)
176	95.00 - 101.00% of mass 174	67.43 (98.09)
177	5.00 - 9.00% of mass 176	3.91 (5.80)

Date : 09-FEB-2005 00:01

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 0.32

Data File: 7020901.d

Spectrum: Avg. Scans 77-79 (5.43), Background Scan 72

Location of Maximum: 95.00

Number of points: 163

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	11474	83.00	622	141.00	9706	199.00	307
37.00	63088	84.00	20	142.00	860	200.00	13
38.00	60360	85.00	1530	143.00	8037	201.00	59
39.00	23120	86.00	1028	144.00	897	202.00	766
40.00	566	87.00	71768	145.00	568	204.00	385
45.00	14189	88.00	60288	146.00	410	209.00	2946
47.00	22560	90.00	564	147.00	245	210.00	787
48.00	7466	91.00	2533	148.00	2010	212.00	157
49.00	62168	92.00	40648	149.00	246	214.00	79
50.00	329344	93.00	64008	150.00	1465	215.00	160
51.00	109264	94.00	171328	152.00	767	218.00	200
52.00	5979	95.00	1876480	153.00	1013	219.00	1100
53.00	343	96.00	122000	155.00	2738	220.00	450
54.00	265	97.00	1206	156.00	2937	222.00	252
55.00	2296	98.00	800	157.00	3084	224.00	164
56.00	16648	100.00	152	159.00	1581	225.00	22
57.00	40784	101.00	662	160.00	387	226.00	359
58.00	1725	102.00	1153	161.00	1214	228.00	232
60.00	10851	103.00	690	162.00	1390	229.00	146
61.00	64304	104.00	3832	164.00	675	231.00	338
62.00	64728	105.00	1734	165.00	486	232.00	20
63.00	48984	106.00	5223	166.00	688	235.00	755
64.00	3632	108.00	1595	168.00	118	240.00	368
65.00	401	109.00	399	170.00	361	241.00	170
66.00	295	110.00	442	171.00	913	246.00	167
67.00	3255	111.00	1027	172.00	364	247.00	907
68.00	144640	113.00	540	173.00	6517	248.00	909
69.00	139840	117.00	6585	174.00	1289728	249.00	279
70.00	10062	118.00	3623	175.00	85592	255.00	496
71.00	275	119.00	5234	176.00	1265152	259.00	166
72.00	7108	123.00	962	177.00	73440	261.00	527
73.00	59144	124.00	819	178.00	1308	262.00	106
74.00	234368	125.00	1783	180.00	678	264.00	395
75.00	793344	128.00	3747	181.00	671	265.00	100
76.00	66736	129.00	2227	183.00	195	271.00	250

Data File: /chem/msd7.i/7-09feb.b/7020901.d

Page 4

Date : 09-FEB-2005 00:01

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 0.32

Data File: 7020901.d

Spectrum: Avg. Scans 77-79 (5.43), Background Scan 72

Location of Maximum: 95.00

Number of points: 163

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	8740	130.00	4529	185.00	76	272.00	275
78.00	6193	132.00	335	188.00	578	273.00	134
79.00	18136	135.00	1654	190.00	828	276.00	71
80.00	6816	137.00	707	192.00	789	279.00	251
81.00	20016	138.00	334	195.00	301	280.00	60
82.00	6197	139.00	314	197.00	376		

1031

SCOEPA00032703

Air Toxics Ltd.

Data file : /var/chem/msd7.i/7-10feb.b/7021001.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 10-FEB-2005 00:16
Operator : WW Inst ID: msd7.i
Smp Info : BFB Tune Check #843-1953
Misc Info : 2.0uL 50ng
Comment :
Method : /var/chem/msd7.i/7-10feb.b/bfb60.m
Meth Date : 10-Feb-2005 00:18 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.46000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.46000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
1 bfb					CAS #: 460-00-4				
5.486	5.442	0.044	95	1639331			100.00- 100.00	100.00	
5.486	5.442	0.044	50	297156			15.00- 40.00	18.13	
5.486	5.442	0.044	75	728000			30.00- 60.00	44.41	
5.486	5.442	0.044	96	110126			5.00- 9.00	6.72	
5.486	5.442	0.044	173	5826			0.00- 2.00	0.48	
5.486	5.442	0.044	174	1206954			50.00- 100.00	73.62	
5.486	5.442	0.044	175	83362			5.00- 9.00	6.91	
5.486	5.442	0.044	176	1164740			95.00- 101.00	96.50	
5.486	5.442	0.044	177	71528			5.00- 9.00	6.14	

Data File: /chem/msd7.i/7-10feb.b/7021001.d

Page 1

Date : 10-FEB-2005 00:16

Client ID: BFB

Instrument: msd7.i

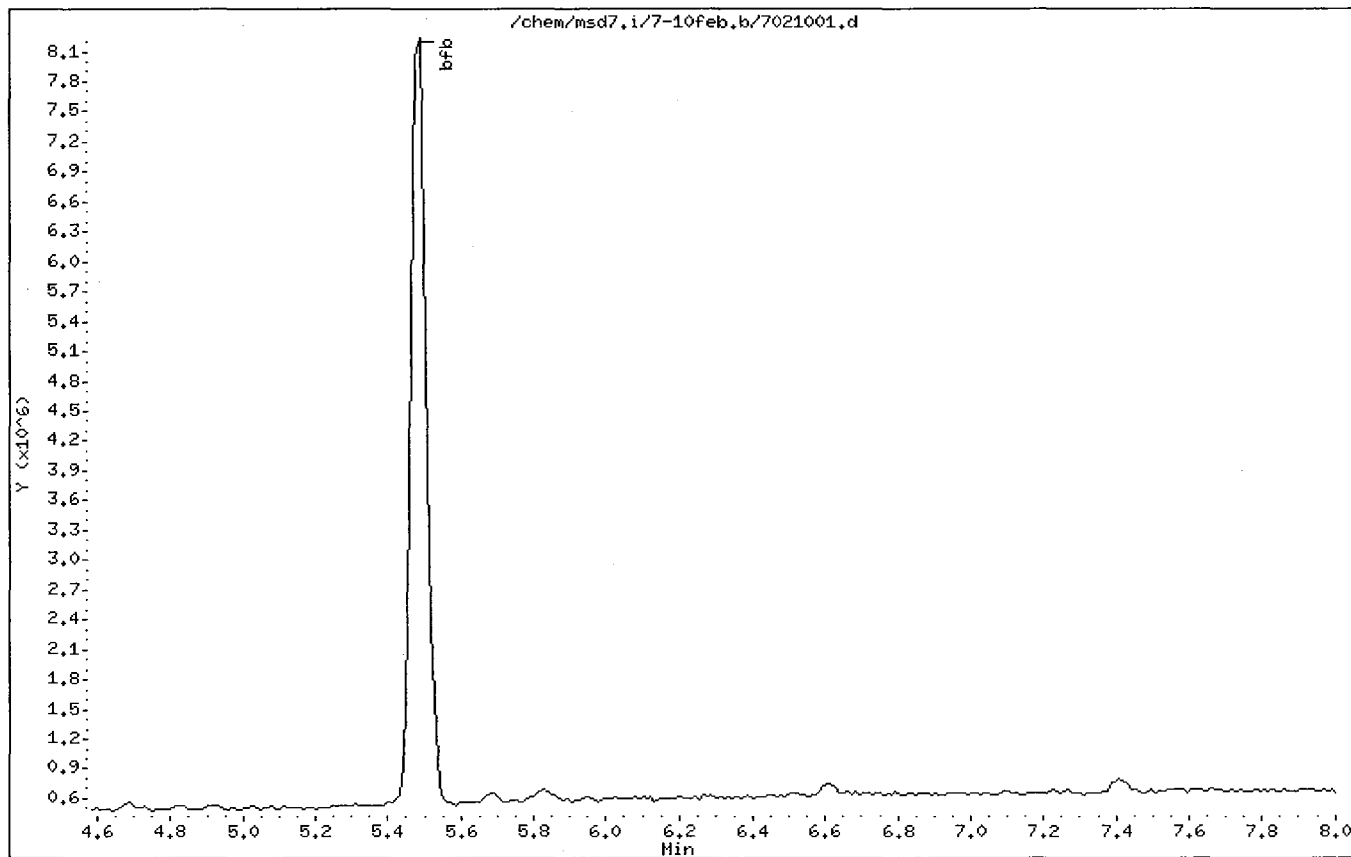
Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: MM

Column phase:

Column diameter: 0.32



1033

SCOEP00032705

Date : 10-FEB-2005 00:16

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

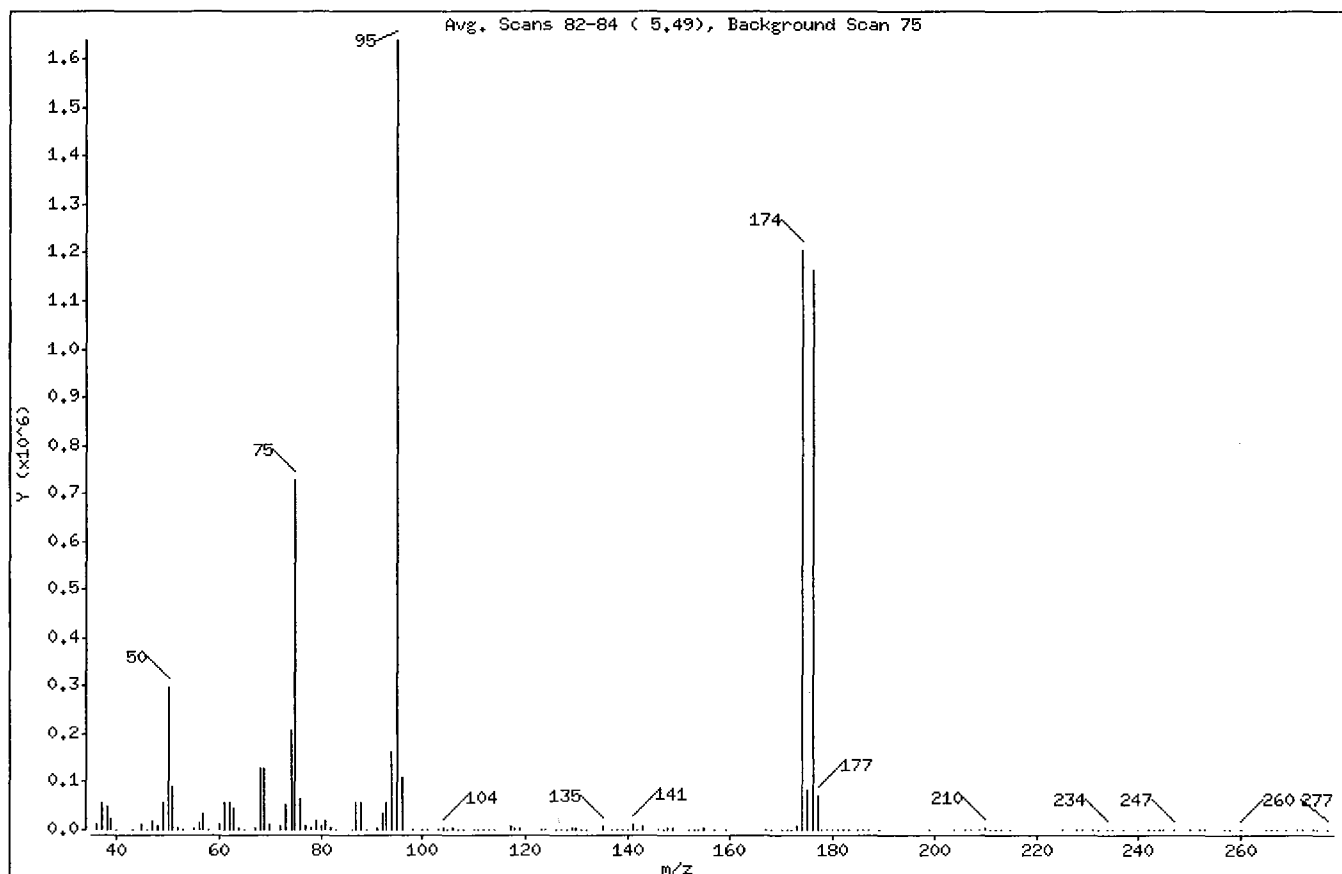
Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.13
75	30.00 - 60.00% of mass 95	44.41
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.36 (0.48)
174	50.00 - 100.00% of mass 95	73.62
175	5.00 - 9.00% of mass 174	5.09 (6.91)
176	95.00 - 101.00% of mass 174	71.05 (96.50)
177	5.00 - 9.00% of mass 176	4.36 (6.14)

Date : 10-FEB-2005 00:16

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: MW

Column phase:

Column diameter: 0.32

Data File: 7021001.d
Spectrum: Avg. Scans 82-84 (5.49), Background Scan 75
Location of Maximum: 95.00
Number of points: 154

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	9667	82.00	3746	137.00	1107	206.00	126
37.00	57552	83.00	385	138.00	193	207.00	501
38.00	48952	86.00	428	139.00	610	209.00	770
39.00	20952	87.00	57360	140.00	430	210.00	2284
40.00	587	88.00	55504	141.00	9799	211.00	894
43.00	354	89.00	830	142.00	366	212.00	171
45.00	11924	91.00	2136	143.00	9043	213.00	261
46.00	575	92.00	34208	146.00	1034	215.00	83
47.00	19968	93.00	55032	147.00	611	225.00	20
48.00	7087	94.00	161024	148.00	2941	228.00	58
49.00	54880	95.00	1638912	149.00	2999	229.00	60
50.00	297152	96.00	110120	152.00	1004	231.00	372
51.00	92032	98.00	434	153.00	119	232.00	867
52.00	3195	100.00	217	154.00	380	234.00	965
53.00	46	101.00	299	155.00	3377	235.00	320
55.00	2781	103.00	233	157.00	1378	237.00	255
56.00	16880	104.00	3392	159.00	1306	240.00	340
57.00	35496	105.00	1539	167.00	225	242.00	66
58.00	776	106.00	3328	168.00	280	243.00	232
60.00	10736	107.00	1806	170.00	668	244.00	133
61.00	56808	108.00	207	171.00	1004	245.00	85
62.00	57128	110.00	400	172.00	201	247.00	372
63.00	44608	111.00	363	173.00	5826	250.00	66
64.00	2995	112.00	396	174.00	1206784	252.00	78
65.00	224	113.00	469	175.00	83360	253.00	299
67.00	2554	114.00	200	176.00	1164288	257.00	129
68.00	127896	117.00	5891	177.00	71528	258.00	250
69.00	127344	118.00	4069	178.00	1689	260.00	1390
70.00	9901	119.00	5289	179.00	1027	265.00	25
72.00	5829	123.00	482	180.00	8	266.00	510
73.00	51016	124.00	1032	181.00	138	267.00	255
74.00	207040	126.00	894	182.00	131	269.00	384
75.00	728000	127.00	515	183.00	128	271.00	797
76.00	63336	128.00	1253	185.00	154	272.00	250
77.00	6154	129.00	2160	186.00	140	274.00	70

Data File: /chem/msd7.i/7-10feb.b/7021001.d

Page 4

Date : 10-FEB-2005 00:16

Client ID: BFB

Instrument: msd7.i

Sample Info: BFB Tune Check #843-1953

Volume Injected (uL): 1.0

Operator: WW

Column phase:

Column diameter: 0.32

Data File: 7021001.d

Spectrum: Avg. Scans 82-84 (5.49), Background Scan 75

Location of Maximum: 95.00

Number of points: 154

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	4197	130.00	4765	187.00	243	275.00	92
79.00	18136	131.00	1268	189.00	237	277.00	149
80.00	6529	132.00	68	199.00	142		
81.00	17344	135.00	6490	204.00	885		

Shipping/ Receiving Documents



180 Blue Ravine Road, Suite B
Folsom, CA 95630

Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific

COMPANY: Clayton Group Services
ATTENTION: Mr. Scott Turtle
FAX #: 971-244-1209
FROM: Sample Receiving
Workorder #: 0502032
of pages (Including Cover): 1

2/15/2005

Thank you for selecting Air Toxics Ltd. We have received your samples and have found no discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy. Corrections can be faxed to **Kelly Buettner at 916-985-1020**. ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

2nd Day Air



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 2

Contact Person Scott Turkle
Company Clayton Group Services Email sturkle@claytongroup.com
Address 1500 NE Irving, Suite 440 City Portland State OR Zip 97232
Phone 971-244-1200 Fax 971-244-1209

Collected by: (signature) [Signature]

Project Info:		Turn Around Time:	Lab Use Only
P.O. #		<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush	Pressurized by: <u>B.S.</u>
Project #	<u>65-05032.00</u>		Date: <u>2/3/05</u>
Project Name	<u>Hahn - Siltronics</u>	specify	Pressurization Gas: <u>(N)</u> He

Lab I.D.	Field Sample I.D. (Location)	Date	Time	Analyses Requested	Canister Pressure/Vacuum			
					Initial	Final	Receipt	Final (psi)
01A	#1 Fab 1, Office	1/25/05	8:23-4:13	Modified TC-15, and naphthalene, level 10w	29.8	7.3	8.0" Hg	0.05
02A	#2 Fab 1, Shipping/Storage	1/25/05	7:58-3:58p	"	29.2	8.7	7.5" Hg	
03A	#3 Roof of Fab 1	1/25/05	8:11-4:11	"	31.4	6.3	6.0" Hg	
04A	#4 Fab 2, Sub Fab, Chem Prep	1/25/05	11:20-7:29p	"	31.8	6.8	6.5" Hg	
05A	#5 Fab 2, Sub Fab, Slicing	1/25/05	11:18-7:18	"	30.3	7.2	7.0" Hg	
06A	#6 Fab 2, Sub Fab, Office	1/25/05	10:59-6:59	"	30.0	6.8	7.5" Hg	
07A	#7 Fab 2, Sub Fab, Lobby	1/25/05	10:51-6:51	"	31.7	5.8	7.0" Hg	
08A	#8 Roof of Fab 2	1/25/05	10:33-6:33	"	28.8	6.1	6.5" Hg	
09A	#9 Central Facilities Bldg NW	1/25/05	9:05-1:32	"	28.3	9.5	2.0" Hg	
10A	#10 Central Facilities Bldg Compressor	1/25/05	9:22-5:22	"	28.4	6.4	6.5" Hg	V

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>1/25/05, 8:00p</u>	Received by: (signature) <u>James H. Thomas</u> Date/Time <u>1/28/05 9:55</u>	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>Fedex</u>	<u>7928 3230 3579</u>	<u>—</u>	<u>(Good)</u>	Yes No <u>(None)</u>	<u>0502032</u>

1039

SCOEPAA00032711



Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 2

CHAIN-OF-CUSTODY RECORD

Contact Person Scott Tunkle
Company Clayton Group Services Email stunkle@claytongroup.com
Address 1500 NE Irving, #448 City Portland State OR Zip 97232
Phone 971.244.1200 Fax 971.244.1200

Collected by: (Signature) [Signature]

Project Info:		Turn Around Time:	Lab Use Only:
P.O. # _____		<input checked="" type="checkbox"/> Normal	Pressurized by: <u>BS</u>
Project # <u>65-05032.00</u>		<input type="checkbox"/> Rush	Date: <u>2/3/05</u>
Project Name <u>Haha-S. tronics</u>		Specify _____	Pressurization Gas: <u>N</u> He

Lab I.D.	Field Sample I.D. (Location)	Date	Time	Analyses Requested	Canister Pressure/Vacuum			
					Initial	Final	Receipt	Final (psi)
11A	#11, Fab 2 Waste water Treatment	1/25/05	8:39-4:39	Mod T0-15, and Naphthalene, low level	29.8	6.4	6.5" Hg	5.0 psi
12A	#12, Outside, south center fence	1/25/05	7:53-5:53	"	28.4	6.7	6.0" Hg	
13A	#13, Outside, southeast fence	1/25/05	9:57-2:27	"	31.5	0.0	0.4 psi	
14A	#14, Outside, near Guard Shack	1/25/05	10:12-6:12	"	29.0	6.2	5.5" Hg	
15A	#15, Outside, west of CUB	1/25/05	8:54-4:54	"	28.8	6.7	5.5" Hg	

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>1/25/05 8:00 PM</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>1/28/05 9:55</u>	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name <u>[Signature]</u>	Air BIR # <u>7928 3120 3529</u>	Temp (°C) <u>—</u>	Condition <u>Good</u>	Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u>	Work Order # <u>0502032</u>
--------------	---------------------------------	---------------------------------	--------------------	-----------------------	--	-----------------------------



Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 457-4822

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

CHAIN-OF-CUSTODY RECORD

Contact Person Scott Turkle
Company Clayton Group Services Email sturkle@claytongroup.com
Address 1500 NE Irving Suite 400 City Portland State OR Zip 97232
Phone 971-244,1200 Fax 971-244,1209

Collected by: (Signature) [Signature]

Project Info:	Turn Around Time:
P.O. #	<input checked="" type="checkbox"/> Normal
Project # <u>65-05032.00</u>	<input type="checkbox"/> Rush
Project Name <u>Hahn - Siltronics</u>	specify

Lab I.D.	Field Sample I.D. (Location)	Date	Time	Analyses Requested	Canister Pressure/Vacuum			
					Initial	Final	Receipt	Final
33916	#1 Fab 1, Office	1/25/05	8:23-4:23	Modified TOL 15, and naphthalene, level 10	29.8	7.3		
33919	#2 Fab 1, Shipping/Storage	1/25/05	7:58-3:58	"	29.2	8.7		
34415	#3, Roof of Fab 1	1/25/05	8:11-4:11	"	31.4	6.3		
10987	#4, Fab 2, Sub Fab, Chem Prep	1/25/05	11:20-7:20	"	31.8	6.8		
10787	#5, Fab 2, Sub Fab, Slicing	1/25/05	11:18-7:18	"	30.3	7.2		
2130	#6, Fab 2, Sub Fab, Office	1/25/05	10:59-6:59	"	30.0	6.8		
1148	#7, Fab 2, Sub Fab, Lobby	1/25/05	10:51-6:51	"	31.7	5.8		
941	#8, Roof of Fab 2	1/25/05	10:39-6:33	"	28.8	6.1		
235	#9, Central Facilities Bldg, 81d	1/25/05	9:05-1:32	"	28.3	0.5		
1079	#10, Central Facilities Bldg, Compressor	1/25/05	9:22-5:22	"	28.4	6.4		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>1/25/05, 8:00pm</u>	Received by: (signature) _____ Date/Time _____	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Order #
		<u>0502032</u>

1041
Feb. 1, 2005 10:55AM

No. 0048 2, 2



CHAIN-OF-CUSTODY RECORD

Contact Person Scott Tunkle
 Company Clayton Group Services Email stunkle@claytongroup.com
 Address 1500 NE Irving, #1400 City Portland State OR Zip 97232
 Phone 971.244.1200 Fax 971.244.1200

Collected by: (Signature) Scott Tunkle

Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
 FOLSOM, CA 95630-4719
 (916) 985-1000 FAX (916) 985-1020

Page 2 of 2

Project Info:

P.O. # _____
 Project # 65-05032.00
 Project Name Hahn-Sitronics

Turn Around Time:

☒ Normal
☐ Rush

specify _____

Canister Pressure/Vacuum
Initial Final
29.8 6.4
28.4 6.7
31.5 0.0
29.0 6.2
28.8 6.7

Lab #	Lab I.D.	Field Sample I.D. (Location)	Date	Time	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Range	Final
294	10274	#11, Feb 2 Waste water Treatment	1/25/05	8:39-4:39	Mad T0-15, and Naphthalene low level	29.8	6.4		
1711	12711	#12, Outside, south center fence	1/25/05	9:53-5:53	" " "	28.4	6.7		
006	21806	#13 Outside, southeast fence	1/25/05	9:57-2:57	" " "	31.5	0.0		
1420	34420	#14 Outside, near Guard Shack	1/25/05	10:12-6:12	" " "	29.0	6.2		
1335	34335	#15 Outside, west of CUB	1/25/05	8:54-4:54	" " "	28.8	6.7		

Relinquished by: (signature) <u>Scott Tunkle</u> Date/Time <u>1/25/05 8:00 PM</u>	Received by: (signature) _____ Date/Time _____	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name _____	0502032
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Feb. 1, 2005 10:59AM
 1042

No. 0348 P. 3

SAMPLE RECEIPT SUMMARY

WORKORDER 0502032

Client

Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

Phone

971-244-1205

Fax

971-244-1209

Date Promised: 02/11/05

Date Completed: 2/11/05

Date Received: 1/28/05

PO#:

Project#: 65-05032.00 Hahn-Siltronic

Sales Rep: R10

Total \$: \$ 4,725.00

Logged By: LT

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Receipt</u>	<u>Amount\$</u>
				<u>Vac./Pres.</u>	
01A	#1, Fab 1, Office	Modified TO-15	1/25/2005	8.0 "Hg	\$210.00
02A	#2, Fab 1, Shipping/Storage	Modified TO-15	1/25/2005	7.5 "Hg	\$210.00
03A	#3, Roof of Fab 1	Modified TO-15	1/25/2005	6.0 "Hg	\$210.00
04A	#4, Fab 2, SubFab, Chem Prep	Modified TO-15	1/25/2005	6.5 "Hg	\$210.00
05A	#5, Fab 2, SubFab, Slicing	Modified TO-15	1/25/2005	7.0 "Hg	\$210.00
06A	#6, Fab 2, SubFab, Office	Modified TO-15	1/25/2005	7.5 "Hg	\$210.00
07A	#7, Fab 2, SubFab, Lobby	Modified TO-15	1/25/2005	7.0 "Hg	\$210.00
08A	#8, Roof of Fab 2	Modified TO-15	1/25/2005	6.5 "Hg	\$210.00
09A	#9, Central Facilities Bldg, NW Rm	Modified TO-15	1/25/2005	2.0 "Hg	\$210.00
09AA	#9, Central Facilities Bldg, NW Rm Dup	Modified TO-15	1/25/2005	2.0 "Hg	\$0.00
10A	#10, Central Facilities Bldg, Compresso	Modified TO-15	1/25/2005	6.5 "Hg	\$210.00
11A	#11, Fab 2, Waste Water Treatment	Modified TO-15	1/25/2005	6.5 "Hg	\$210.00
12A	#12, Outside, South Center Fence	Modified TO-15	1/25/2005	6.0 "Hg	\$210.00
13A	#13, Outside, Southeast Fence	Modified TO-15	1/25/2005	0.4 psi	\$210.00
14A	#14, Outside, near Guard Shack	Modified TO-15	1/25/2005	5.5 "Hg	\$210.00
15A	#15, Outside, West of CUB	Modified TO-15	1/25/2005	5.5 "Hg	\$210.00
16A	Lab Blank	Modified TO-15	NA	NA	\$0.00
16B	Lab Blank	Modified TO-15	NA	NA	\$0.00
16C	Lab Blank	Modified TO-15	NA	NA	\$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Hahn Siltronic/7304

BILL TO: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

Analysis Code: pptv

Reporting Method: Modified TO-15-LL + Naphthalene

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



AN ENVIRONMENTAL ANALYTICAL LABORATORY

SAMPLE RECEIPT SUMMARY Continued

Client	Phone	Date Promised: 02/11/05
Mr. Scott Turkle		Date Completed: 2/11/05
Clayton Group Services	971-244-1205	Date Received: 1/28/05
1500 NE Irving Street		PO#:
Suite 440	Fax	Project#: 65-05032.00 Hahn-Siltronic
Portland, OR 97232	971-244-1209	
Sales Rep: R10		Total \$: \$ 4,725.00
		Logged By: LT

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Receipt Vac./Pres.</u>	<u>Amount\$</u>
17A	CCV	Modified TO-15	NA	NA	\$0.00
17B	CCV	Modified TO-15	NA	NA	\$0.00
17C	CCV	Modified TO-15	NA	NA	\$0.00
18A	LCS	Modified TO-15	NA	NA	\$0.00
18B	LCS	Modified TO-15	NA	NA	\$0.00
18C	LCS	Modified TO-15	NA	NA	\$0.00

Misc. Charges ECVP (15) @ \$10.00 each.	\$150.00
6 Liter Summa Canister (100% Certified) (15) @ \$65.00 each.	\$975.00
Flow Controller-8 hr (100% Certified) (15) @ \$30.00 each.	\$450.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Hahn Siltronic/7304

BILL TO: Mr. Scott Turkle
Clayton Group Services
1500 NE Irving Street
Suite 440
Portland, OR 97232

Analysis Code: pptv

Reporting Method: Modified TO-15-LL + Naphthalene

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Other Records

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.5	1.36	1.71	2.05
1.0	1.39	1.74	2.09
1.5	1.41	1.77	2.13
2.0	1.44	1.80	2.16
2.5	1.46	1.83	2.20
3.0	1.49	1.87	2.24
3.5	1.52	1.90	2.29
4.0	1.55	1.94	2.33
4.5	1.58	1.98	2.38
5.0	1.61	2.02	2.42
5.5	1.64	2.06	2.47
6.0	1.68	2.10	2.53
6.5	1.71	2.15	2.58
7.0	1.75	2.19	2.64
7.5	1.79	2.24	2.69
8.0	1.83	2.29	2.76
8.5	1.87	2.34	2.82
9.0	1.91	2.40	2.89
9.5	1.96	2.46	2.96
10.0	2.01	2.52	3.03
10.5	2.06	2.59	3.11
11.0	2.12	2.65	3.19
11.5	2.17	2.72	3.28
12.0	2.23	2.80	3.37
12.5	2.30	2.88	3.46
13.0	2.36	2.97	3.57
13.5	2.44	3.06	3.67
14.0	2.51	3.15	3.79
14.5	2.59	3.25	3.91
15.0	2.68	3.36	4.04
15.5	2.77	3.48	4.18
16.0	2.87	3.60	4.33
16.5	2.98	3.73	4.49
17.0	3.09	3.88	4.66
17.5	3.22	4.03	4.85
18.0	3.35	4.20	5.05
18.5	3.50	4.38	5.27
19.0	3.65	4.58	5.51
19.5	3.83	4.80	5.77
20.0	4.02	5.04	6.06
20.5	4.23	5.31	6.38

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
21.0	4.47	5.60	6.73
21.5	4.73	5.93	7.13
22.0	5.03	6.30	7.58
22.5	5.36	6.72	8.08
23.0	5.74	7.20	8.66
23.5	6.19	7.76	9.32
24.0	6.70	8.40	10.10
24.5	7.31	9.17	11.02
25.0	8.04	10.08	12.12
25.5	8.93	11.20	13.47
26.0	10.05	12.60	15.15
26.5	11.49	14.40	17.32
27.0	13.40	16.80	20.20
27.5	16.08	20.16	24.24
28.0	20.10	25.20	30.31
28.5	26.80	33.61	40.41
29.0	40.20	50.41	60.61

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound Listing

Modified TO-15-LL + Naphthalene

CAS Number	Compound	Detection Limit ppbv
100-41-4	Ethyl Benzene	0.10
108-38-3	m,p-Xylene	0.10
95-47-6	o-Xylene	0.10
100-42-5	Styrene	0.10
79-34-5	1,1,2,2-Tetrachloroethane	0.10
108-67-8	1,3,5-Trimethylbenzene	0.10
95-63-6	1,2,4-Trimethylbenzene	0.10
541-73-1	1,3-Dichlorobenzene	0.10
106-46-7	1,4-Dichlorobenzene	0.10
100-44-7	alpha-Chlorotoluene	0.10
95-50-1	1,2-Dichlorobenzene	0.10
75-09-2	Methylene Chloride	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50
87-68-3	Hexachlorobutadiene	0.50
106-99-0	1,3-Butadiene	0.50
67-64-1	Acetone	0.50
75-15-0	Carbon Disulfide	0.50
67-63-0	2-Propanol	0.50
75-71-8	Freon 12	0.10
76-14-2	Freon 114	0.10
74-87-3	Chloromethane	0.10
75-01-4	Vinyl Chloride	0.10
74-83-9	Bromomethane	0.10
75-00-3	Chloroethane	0.10
75-69-4	Freon 11	0.10
75-35-4	1,1-Dichloroethene	0.10
76-13-1	Freon 113	0.10
75-34-3	1,1-Dichloroethane	0.10
156-59-2	cis-1,2-Dichloroethene	0.10
67-66-3	Chloroform	0.10
71-55-6	1,1,1-Trichloroethane	0.10
56-23-5	Carbon Tetrachloride	0.10
71-43-2	Benzene	0.10
107-06-2	1,2-Dichloroethane	0.10
79-01-6	Trichloroethene	0.10
78-87-5	1,2-Dichloropropane	0.10
10061-01-5	cis-1,3-Dichloropropene	0.10
108-88-3	Toluene	0.10
10061-02-6	trans-1,3-Dichloropropene	0.10
79-00-5	1,1,2-Trichloroethane	0.10
127-18-4	Tetrachloroethene	0.10
106-93-4	1,2-Dibromoethane (EDB)	0.10
108-90-7	Chlorobenzene	0.10
156-60-5	trans-1,2-Dichloroethene	0.50
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50
110-54-3	Hexane	0.50

Compound Listing

Modified TO-15-LL + Naphthalene

CAS Number	Compound	Detection Limit ppbv
109-99-9	Tetrahydrofuran	0.50
110-82-7	Cyclohexane	0.50
123-91-1	1,4-Dioxane	0.50
75-27-4	Bromodichloromethane	0.50
108-10-1	4-Methyl-2-pentanone	0.50
591-78-6	2-Hexanone	0.50
124-48-1	Dibromochloromethane	0.50
75-25-2	Bromoform	0.50
622-96-8	4-Ethyltoluene	0.50
64-17-5	Ethanol	0.50
1634-04-4	Methyl tert-butyl ether	0.50
142-82-5	Heptane	0.50
98-82-8	Cumene	0.50
103-65-1	Propylbenzene	0.50
91-20-3	Naphthalene	0.50
17060-07-0	1,2-Dichloroethane-d4	
2037-26-5	Toluene-d8	
460-00-4	4-Bromofluorobenzene	

PASSED
CERTIFICATION

JAN 18 2005

Certification Report

Canister Number: F011748; 6L w/8hr+Cane

Can#33916:1

Date: 1/18/2005 Time: 02:42:30

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 1

ATL TOF
CERTIFICATION

Peak #	Name	RT (s)	Expanded Analyte RT (s)	Type	Conc	Unit
	Dichlorodifluoromethane/Fr.12/ TO150114c		110.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114c		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	Tetrahydrofuran/TO150114c		283.744	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv

1050

SCOEP00032722

Certification Report

Canister Number: F011748; 6L w/8hr+Cane

Can#33916:1

Date: 1/18/2005 Time: 02:42:30

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 2

ATL TOF

CERTIFICATION

Peak	Name	RT (s)	Expected Area	RT (s)	Type	Conc	Units
	1,2-Dibromoethane/TO150114c		364.244		Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144		Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444		Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544		Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644		Not Found	0.000	ppbv
	Cumene/TO150114c		409.044		Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944		Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844		Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344		Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544		Not Found	0.000	ppbv
	Indene/TO150114c		469.306		Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344		Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544		Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806		Not Found	0.000	ppbv
4	Propene	104.325	101.344		Quantified	0.3469	ppbv
6	Freon 114	135.725	134.644		Quantified	0.005093	ppbv
7	Chloromethane	141.225	139.644		Quantified	0.007005	ppbv
9	Bromomethane	182.325	181.844		Quantified	0.004619	ppbv
11	Ethanol	218.925	219.344		Quantified	0.1013	ppbv
13	Carbon disulfide	229.825	229.844		Quantified	0.01130	ppbv
14	Acetone	231.225	231.444		Quantified	0.1241	ppbv
15	2-Propanol	237.025	237.144		Quantified	0.01131	ppbv
16	Methylene Chloride	242.725	242.744		Quantified	0.03534	ppbv
17	Hexane	253.725	253.844		Quantified	0.005252	ppbv
19	2-Butanone	277.025	277.644		Quantified	0.03826	ppbv
21	Bromochloromethane-IS	281.925	282.044		Quantified	0.000 ✓	ppbv
22	Cyclohexane	285.825	286.244		Quantified	0.007749	ppbv
22	Cyclohexane	285.825	285.806		Quantified	0.02666	ppbv
23	2,2,4-Trimethylpentane	293.525	293.744		Quantified	0.02516	ppbv
24	Benzene	295.125	295.344		Quantified	0.09054	ppbv
25	1,2-Dichloroethane-d4	295.525	295.744		Quantified	5.148 ✓	ppbv
26	1,4-Dichlorobenzene-IS	303.725	303.944		Quantified	0.000 ✓	ppbv
27	Toluene-D8	336.625	336.944		Quantified	4.964 ✓	ppbv
30	Chlorobenzene-d5-IS	375.725	376.144		Quantified	0.000 ✓	ppbv
31	m,p-Xylene	381.525	382.144		Quantified	0.02051	ppbv
32	Styrene	396.625	397.444		Quantified	0.004724	ppbv
34	Bromofluorobenzene	416.525	417.144		Quantified	4.313 ✓	ppbv
35	1,1,2,2-Tetrachloroethane	420.925	422.144		Quantified	0.002438	ppbv
36	Propylbenzene	422.925	423.544		Quantified	0.003061	ppbv
37	4-Ethyltoluene	425.725	427.344		Quantified	0.01134	ppbv

1051

SCOEPAA00032723

Certification Report

Canister Number: F011748; 6L w/8hr+Cane

Can#33916:1

Date: 1/18/2005 Time: 02:42:30

Calibration:

Operator: Administrator

Page: 3

Dilution Factor: 1.0

ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected/Analyte R.T. (s)	Type	Conc	Unit
38	1,3,5-Trimethylbenzene	428.925	429.444	Quantified	0.01093	ppbv
39	1,2,4-Trimethylbenzene	441.725	442.244	Quantified	0.05771	ppbv
40	Indane	462.025	462.106	Quantified	0.007752	ppbv
1	Phenol, 4-[2-(methylamino)ethyl]-	81.625		Unknown	0.000	ppbv
2	1(2H)-Naphthalenone, octahydro-8aá-methyl-2-(p-methylbenzylidene)-	83.925		Unknown	0.000	ppbv
3	Thiourea, N,N'-diethyl-	84.425		Unknown	0.000	ppbv
5	1-Oxaspiro[4.5]decan-3-carboxylic acid, 2-oxo-4-cyano-, ethyl ester	106.425		Unknown	0.000	ppbv
8	Acetaldehyde	171.625		Unknown	0.000	ppbv
10	1,1-Dichloro-1-fluoroethane	215.925		Unknown	0.000	ppbv
12	1-(4-Nitrophenyl)-3,6-diazahomoadamantan-9-ol	226.825		Unknown	0.000	ppbv
18	Diethylene glycol mono laurate	273.025		Unknown	0.000	ppbv
20	Androst-4-ene-3,6,17-trione	279.925		Unknown	0.000	ppbv
28	Silanediol, dimethyl-	338.125		Unknown	0.000	ppbv
29	Cyclotrisiloxane, hexamethyl-	340.925		Unknown	0.000	ppbv
33	Cyclotetrasiloxane, octamethyl-	411.325		Unknown	0.000	ppbv
41	Rosolic acid, CI 43800	468.025		Unknown	0.000	ppbv
42	Tetrasiloxane, 1,1,3,3,5,5,7,7-octamethyl-	472.225		Unknown	0.000	ppbv
43	Silane, trimethyl(1-methyl-1-propenyl)-, (E)-	519.825		Unknown	0.000	ppbv
44	Benzocycloheptano[2,3,4-1,j]isoquinolin-1,2,9,10-tetraol, 4,5,6,6a- tetrahydro-,	524.525		Unknown	0.000	ppbv
45	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	562.025		Unknown	0.000	ppbv
46	8H-Pyrano[3,4-b]pyrimido[5,4-d]furane, 5,6-dihydro-4-hydrazino-6,6-	612.825		Unknown	0.000	ppbv

1052

SCOEP00032724

**PASSED
CERTIFICATION**

JAN 18 2005

CGS-32520

2/3 1/16/05

02A

Certification Report

Canister Number: f011513, 6L w/8hr FC,
can#33999:1

Date: 1/15/2005 Time: 13:36:32

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 1

ATL TOF CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Type	Conc	Units
	Dichlorodifluoromethane/Fr.12/ TO150114b		110.644	Not Found	0.000	ppbv
	Freon 114/TO150114b		134.644	Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114b		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114b		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114b		249.044	Not Found	0.000	ppbv
	MTBE/TO150114b		249.344	Not Found	0.000	ppbv
	Hexane/TO150114b		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114b		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114b		293.744	Not Found	0.000	ppbv
	Heptane/TO150114b		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114b		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644	Not Found	0.000	ppbv

1053

SCOEPAA00032725

Certification Report

Canister Number: f011513, 6L w/8hr FC,
can#33999:1

Date: 1/15/2005 Time: 13:36:32

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 2

ATL TOF

CERTIFICATION

Peak #	Compound	RT (s)	Conc (ppb)	Conc (ppb)	Conc (ppb)	Conc (ppb)
	trans-1,3-Dichloropropene/ TO150114b		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114b		349.744	Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114b		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114b		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114b		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114b		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644	Not Found	0.000	ppbv
	Cumene/TO150114b		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114b		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114b		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114b		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114b		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114b		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344	Not Found	0.000	ppbv
	Indane/TO150114b		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544	Not Found	0.000	ppbv
	Indene/TO150114b		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806	Not Found	0.000	ppbv
1	Propene	104.425	101.344	Quantified	0.2123	ppbv
3	Ethanol	219.225	219.344	Quantified	0.1745	ppbv
4	Carbon disulfide	229.925	229.844	Quantified	0.007350	ppbv
5	Acetone	231.325	231.444	Quantified	0.07648	ppbv
6	2-Propanol	236.825	237.144	Quantified	0.006349	ppbv
8	Methylene Chloride	242.825	242.744	Quantified	0.1359	ppbv
10	2-Butanone	277.125	277.644	Quantified	0.01213	ppbv
12	Bromochloromethane-IS	281.925	282.044	Quantified	0.000	ppbv
13	Tetrahydrofuran	282.925	283.744	Quantified	0.02668	ppbv
14	Benzene	295.225	295.344	Quantified	0.01895	ppbv
15	1,2-Dichloroethane-d4	295.625	295.744	Quantified	4.940	ppbv
16	1,4-Dichlorobenzene-IS	303.825	303.944	Quantified	0.000	ppbv
18	Toluene-D8	336.725	336.944	Quantified	4.985	ppbv

Certification Report

Canister Number: f011513, 6L w/8hr FC,
can#33999:1

Date: 1/15/2005 Time: 13:36:32

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc.	Units
20	Toluene	338.325	338.544	Quantified	0.004057	ppbv
22	Tetrachloroethene	350.925	351.244	Quantified	0.003160	ppbv
23	Chlorobenzene-d5-IS	375.725	376.144	Quantified	0.000 ✓	ppbv
24	Styrene	396.725	397.444	Quantified	0.008906	ppbv
26	Bromofluorobenzene	416.625	417.144	Quantified	4.707 ✓	ppbv
2	Pyrazole[4,5-b]imidazole, 1-formyl-3	171.725		Unknown	0.000	ppbv
7	Methyl isocyanide	241.425		Unknown	0.000	ppbv
9	Morphinan-3,14-diol, 4,5-epoxy-, (5a)-	273.025		Unknown	0.000	ppbv
11	Methanesulfonic anhydride	279.825		Unknown	0.000	ppbv
17	Morphinan-3,14-diol, 4,5-epoxy-, (5a)-	305.725		Unknown	0.000	ppbv
19	Silanediol, dimethyl-	337.925		Unknown	0.000	ppbv
21	Cyclotrisiloxane, hexamethyl-	341.025		Unknown	0.000	ppbv
25	Cyclotetrasiloxane, octamethyl-	411.425		Unknown	0.000	ppbv
27	Oxime-, methoxy-phenyl-	424.025		Unknown	0.000	ppbv
28	Tetrasiloxane, 1,1,3,3,5,5,7,7- octamethyl-	472.325		Unknown	0.000	ppbv
29	Propadiene, 1,1-diphenyl-3- trimethylsilyl-	519.925		Unknown	0.000	ppbv
30	Benzocycloheptano[2,3,4-l,j] isoquinolin-1,2,9,10-tetraol, 4,5,6,6a- tetrahydro-,	524.725		Unknown	0.000	ppbv
31	Benzoic acid, 4-methyl-2- trimethylsilyloxy-, trimethylsilyl	562.025		Unknown	0.000	ppbv
32	5-(p-Aminophenyl)-4-(O-tolyl)-2- thiazolamine	612.925		Unknown	0.000	ppbv

1055

SCOEPA00032727

**PASSED
CERTIFICATION**

JAN 18 2005

Certification Report

CL-5 32500
SA 1/18/05

03A

Canister Number: F011744; 6L w/8hr+Cane

Can#34415:1

Date: 1/18/2005 Time: 01:40:32

Calibration:

Operator: Administrator

Page: 1

Dilution Factor: 1.0

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Type	Conc	Units
	Dichlorodifluoromethane/Fr.12/TO150114c		110.644	Not Found	0.000	ppbv
	Chloromethane/TO150114c		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114c		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114c		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	Hexane/TO150114c		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114c		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114c		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/TO150114c		344.844	Not Found	0.000	ppbv

1056

SCOEPA00032728

Certification Report

Canister Number: F011744; 6L w/8hr+Cane

Can#34415:1

Date: 1/18/2005 Time: 01:40:32

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	RT (S)	Expected Analyte RT (S)	Type	Conc	Units
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
4	Propene	104.362	101.344	Quantified	0.3186	ppbv
6	Freon 114	135.962	134.644	Quantified	0.01470	ppbv
9	Ethanol	218.862	219.344	Quantified	0.1421	ppbv
11	Carbon disulfide	229.762	229.844	Quantified	0.01707	ppbv
12	Acetone	231.062	231.444	Quantified	0.2352	ppbv
13	2-Propanol	236.462	237.144	Quantified	0.009296	ppbv
15	Methylene Chloride	242.662	242.744	Quantified	0.02441	ppbv
18	2-Butanone	276.962	277.644	Quantified	0.04428	ppbv
20	Bromochloromethane-IS	281.862	282.044	Quantified	0.000 ✓	ppbv
21	Tetrahydrofuran	282.762	283.744	Quantified	0.02645	ppbv
22	2,2,4-Trimethylpentane	293.562	293.744	Quantified	0.004763	ppbv
23	Benzene	295.162	295.344	Quantified	0.04747	ppbv
24	1,2-Dichloroethane-d4	295.462	295.744	Quantified	5.192 ✓	ppbv
26	1,4-Dichlorobenzene-IS	303.762	303.944	Quantified	0.000 ✓	ppbv

1057

SCOEPA00032729

Certification Report

Canister Number: F011744; 6L w/8hr+Cane

Can#34415:1

Date: 1/18/2005 Time: 01:40:32

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 3

ATL TOF

CERTIFICATION

Peak	Name	RT (s)	Expected Analyte RT (s)	Type	Conc.	Units
27	Toluene-D8	336.662	336.944	Quantified	4.965 ✓	ppbv
30	Chlorobenzene-d5-IS	375.662	376.144	Quantified	0.000 ✓	ppbv
31	Styrene	396.662	397.444	Quantified	0.008042	ppbv
33	Bromofluorobenzene	416.562	417.144	Quantified	4.353 ✓	ppbv
1	4-(2-Hydroxyethyl)-3-(4-methoxy-2-nitrophenyl)-5-oxo-2-pyrazoline	86.562		Unknown	0.000	ppbv
2	Xenon	87.062		Unknown	0.000	ppbv
3	Xenon	88.962		Unknown	0.000	ppbv
5	4H-Thiopyran-3,5-dicarbonitrile, 2,6-diamino-4-(4-methylphenyl)-	106.362		Unknown	0.000	ppbv
7	1-Butene	151.162		Unknown	0.000	ppbv
8	Acetaldehyde	171.562		Unknown	0.000	ppbv
10	1-(4-Nitrophenyl)-3,6-diazahomoadamantan-9-ol	226.762		Unknown	0.000	ppbv
14	N-(2,3-Dimethyl-but-2-enylidene)-N-(2,4-dinitro-phenyl)-hydrazine	241.362		Unknown	0.000	ppbv
16	3-Fluoro-3-(2-oxo-cyclopentylsulfanyl)-2-trifluoromethyl-acrylic acid ethyl ester	272.962		Unknown	0.000	ppbv
17	Ethanone, 1-oxiranyl-	273.262		Unknown	0.000	ppbv
19	Methanesulfonic anhydride	279.862		Unknown	0.000	ppbv
25	9-Octadecen-12-ynoic acid, methyl ester	302.662		Unknown	0.000	ppbv
28	Silanediol, dimethyl-	338.062		Unknown	0.000	ppbv
29	Cyclotrisiloxane, hexamethyl-	340.962		Unknown	0.000	ppbv
32	Cyclotetrasiloxane, octamethyl-	411.262		Unknown	0.000	ppbv
34	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl	472.262		Unknown	0.000	ppbv
35	Silane, [[3,3-dimethyl-4-methylene-2-(trimethylsilyl)-1-cyclopenten-1-yl]	519.762		Unknown	0.000	ppbv
36	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	561.862		Unknown	0.000	ppbv
37	8H-Pyrano[3,4-b]pyrimido[5,4-d]furane, 5,6-dihydro-4-hydrazino-6,6-	612.662		Unknown	0.000	ppbv

1058

SCOEP00032730

JAN 19 2005

Clayton # 7304
m/1/19/05

Certification Report

Canister Number: F011839; 6L w/8hr+Cane
Can#10987:1
Date: 1/18/2005 Time: 22:02:08
Calibration:
Operator: Administrator
Dilution Factor: 1.00

Page: 1

ATL TOF

CERTIFICATION

04A

Peak #	Name	P.T. (S)	Expected/Actual (Mtr. T. (S))	Level	Conc	Unit
	Dichlorodifluoromethane/Fr.12/TO150114c		110.644	Not Found	0.000	ppbv
	Chloromethane/TO150114c		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114c		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114c		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	2-Propanol/TO150114c		237.144	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114c		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114c		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114c		293.744	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv

Certification Report

Canister Number: F011839; 6L w/8hr+Cane

Can#10987:1

Date: 1/18/2005 Time: 22:02:08

Calibration:

Operator: Administrator

Dilution Factor: 1.00

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected / Analyte RT (s)	Response	Conc	Units
	trans-1,3-Dichloropropene/ TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
1	Propene	104.697	101.344	Quantified	0.2481	ppbv
3	Freon 114	136.897	134.644	Quantified	0.009724	ppbv
4	Ethanol	219.497	219.344	Quantified	0.3823	ppbv
5	Carbon disulfide	230.197	229.844	Quantified	0.009078	ppbv
6	Acetone	231.497	231.444	Quantified	0.08710	ppbv
9	Methylene Chloride	243.097	242.744	Quantified	0.04239	ppbv
10	Hexane	254.097	253.844	Quantified	0.007059	ppbv
11	2-Butanone	272.697	277.644	Quantified	0.01644	ppbv
14	Bromochloromethane-IS	282.197	282.044	Quantified	0.000	ppbv
15	Tetrahydrofuran	283.197	283.744	Quantified	0.03050	ppbv
16	Benzene	295.497	295.344	Quantified	0.03981	ppbv
17	1,2-Dichloroethane-d4	295.897	295.744	Quantified	6.249	ppbv

1060

SCOEP00032732

Certification Report

Canister Number: F011839; 6L w/8hr+Cane

Can#10987:1

Date: 1/18/2005 Time: 22:02:08

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc	Units
18	1,4-Dichlorobenzene-IS	304.097	303.944	Quantified	0.000	ppbv
19	Toluene-D8	336.997	336.944	Quantified	5.593	ppbv
22	Chlorobenzene-d5-IS	376.097	376.144	Quantified	0.000	ppbv
23	Styrene	397.297	397.444	Quantified	0.01115	ppbv
25	Bromofluorobenzene	416.897	417.144	Quantified	4.415	ppbv
2	Yohimban-17-one	106.597		Unknown	0.000	ppbv
7	2-Pentanamine, 4-methyl-	234.297		Unknown	0.000	ppbv
8	Methyl isocyanide	241.697		Unknown	0.000	ppbv
12	Silanol, trimethyl-	273.397		Unknown	0.000	ppbv
13	Androst-4-ene-3,6,17-trione	280.297		Unknown	0.000	ppbv
20	Silanediol, dimethyl-	338.497		Unknown	0.000	ppbv
21	Cyclotrisiloxane, hexamethyl-	341.297		Unknown	0.000	ppbv
24	Cyclotetrasiloxane, octamethyl-	411.697		Unknown	0.000	ppbv
26	3-(3-Carboxy-4-hydroxyphenyl)-D-alanine	424.297		Unknown	0.000	ppbv
27	Phenol	468.297		Unknown	0.000	ppbv
28	Methanethione, (2,5-dimethylphenyl)	472.597		Unknown	0.000	ppbv
29	Propadiene, 1,1-diphenyl-3-trimethylsilyl-	520.197		Unknown	0.000	ppbv
30	Phenol, 4,4'-(1-methylethylidene)bis[	524.997		Unknown	0.000	ppbv
31	p-Trimethylsiloxybenzaldehyde oxime, trimethylsilyl-	562.297		Unknown	0.000	ppbv
32	8H-Pyrano[3,4-b]pyrimido[5,4-d]furane, 5,6-dihydro-4-hydrazino-6,6-	613.097		Unknown	0.000	ppbv

1061

SCOEP00032733

PASSED
CERTIFICATION

JAN 19 2005 Certification Report

Locus in 1/19/05
Clayton #7324
05A

Canister Number: F011838; 6L w/8hr+Cane
Can#10777:1
Date: 1/18/2005 Time: 21:46:41
Calibration:
Operator: Administrator
Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Analyte R.T. (s)	Level	Conc.	Units
	Dichlorodifluoromethane/Fr.12/TO150114c		110.644	Not Found	0.000	ppbv
	Chloromethane/TO150114c		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114c		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	2-Propanol/TO150114c		237.144	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	Hexane/TO150114c		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	Cyclohexane/TO150114c		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv

1062

SCOEPAA00032734

Certification Report

Canister Number: F011838; 6L w/8hr+Cane

Can#10777:1

Date: 1/18/2005 Time: 21:46:41

Calibration:

Operator: Administrator

Dilution Factor: 1.00

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc.	Units
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
4	Propene	104.254	101.344	Quantified	0.2314	ppbv
6	Freon 114	136.154	134.644	Quantified	0.01122	ppbv
7	Isopentane	191.754	191.706	Quantified	0.05215	ppbv
8	Ethanol	218.854	219.344	Quantified	0.1041	ppbv
9	Carbon disulfide	229.854	229.844	Quantified	0.01068	ppbv
10	Acetone	231.154	231.444	Quantified	0.09150	ppbv
13	Methylene Chloride	242.654	242.744	Quantified	0.04311	ppbv
15	2-Butanone	277.054	277.644	Quantified	0.007434	ppbv
17	Bromochloromethane-IS	281.854	282.044	Quantified	0.000	ppbv
18	Tetrahydrofuran	282.654	283.744	Quantified	0.03164	ppbv
19	2,3-Dimethylpentane	285.754	285.806	Quantified	0.01900	ppbv
20	2,2,4-Trimethylpentane	293.454	293.744	Quantified	0.01471	ppbv
21	Benzene	295.154	295.344	Quantified	0.03942	ppbv
22	1,2-Dichloroethane-d4	295.554	295.744	Quantified	6.264	ppbv
23	1,4-Dichlorobenzene-IS	303.754	303.944	Quantified	0.000	ppbv

1063

SCOEPA00032735

Certification Report

Canister Number: F011838; 6L w/8hr+Cane

Can#10777:1

Date: 1/18/2005 Time: 21:46:41

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak #	Name	F (s)	Expected Analyte RT (s)	Type	Conc	Units
24	Toluene-D8	336.654	336.944	Quantified	5.585	ppbv
27	Chlorobenzene-d5-IS	375.654	376.144	Quantified	0.000	ppbv
28	Styrene	396.754	397.444	Quantified	0.01203	ppbv
30	Bromofluorobenzene	416.554	417.144	Quantified	4.460	ppbv
1	Disilane, 1,1,1,2,2-pentamethyl-2-[(	84.454		Unknown	0.000	ppbv
2	Propanoyl chloride, phenyl-	84.954		Unknown	0.000	ppbv
3	Propenone, 3-(3,4-dichlorophenyl)-1	86.554		Unknown	0.000	ppbv
5	Isoquinolin-6,7-diol-1-carboxylic acid, N-acetyl-1-methyl-	106.254		Unknown	0.000	ppbv
11	Nitrous Oxide	234.754		Unknown	0.000	ppbv
12	Methyl isocyanide	241.354		Unknown	0.000	ppbv
14	Silanol, trimethyl-	273.054		Unknown	0.000	ppbv
16	10-Heptadecen-8-ynoic acid, methyl ester, (E)-	280.054		Unknown	0.000	ppbv
25	Silanediol, dimethyl-	338.254		Unknown	0.000	ppbv
26	Cyclotrisiloxane, hexamethyl-	340.954		Unknown	0.000	ppbv
29	Cyclotetrasiloxane, octamethyl-	411.354		Unknown	0.000	ppbv
31	3-(3-Carboxy-4-hydroxyphenyl)-D- alanine	423.954		Unknown	0.000	ppbv
32	Rosolic acid, CI 43800	468.054		Unknown	0.000	ppbv
33	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl	472.254		Unknown	0.000	ppbv
34	Silane, [[3,3-dimethyl-4-methylene-2- -(trimethylsilyl)-1-cyclopenten-1-yl]	519.854		Unknown	0.000	ppbv
35	Benzofran-3-one, 2-[3,4- dihydroxybenzylidene]-6-hydroxy-	524.654		Unknown	0.000	ppbv
36	Benzoic acid, 3-methyl-2- trimethylsilyloxy-, trimethylsilyl	561.954		Unknown	0.000	ppbv
37	Mercaptoacetic acid, bis(trimethylsilyl)-	612.854		Unknown	0.000	ppbv

PASSED
CERTIFICATION

JAN 19 2005

Certification Report

Canister Number: F011836; 6L w/8hr+Cane

Can#32130:1

Date: 1/18/2005 Time: 21:15:46

Calibration:

Operator: Administrator

Dilution Factor: 1.00

Page: 1

CAS 
06A
ATL TOF
CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc	Unit
	Dichlorodifluoromethane/Fr.12/ TO150114c		110.644	Not Found	0.000	ppbv
	Chloromethane/TO150114c		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114c		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114c		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	Hexane/TO150114c		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114c		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114c		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114c		293.744	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv

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SCOEPAA00032737

Certification Report

Canister Number: F011836; 6L w/8hr+Cane

Can#32130:1

Date: 1/18/2005 Time: 21:15:46

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc	Units
	trans-1,3-Dichloropropene/ TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
4	Propene	104.741	101.344	Quantified	0.2192	ppbv
6	Freon 114	136.041	134.644	Quantified	0.009198	ppbv
8	Ethanol	219.341	219.344	Quantified	0.1586	ppbv
9	Carbon disulfide	230.241	229.844	Quantified	0.01087	ppbv
10	Acetone	231.441	231.444	Quantified	0.1270	ppbv
11	2-Propanol	235.041	237.144	Quantified	0.008134	ppbv
13	Methylene Chloride	243.041	242.744	Quantified	0.03202	ppbv
15	2-Butanone	277.441	277.644	Quantified	0.01993	ppbv
17	Bromochloromethane-IS	282.241	282.044	Quantified	0.000	ppbv
18	Tetrahydrofuran	283.041	283.744	Quantified	0.02397	ppbv
19	Benzene	295.541	295.344	Quantified	0.04055	ppbv
20	1,2-Dichloroethane-d4	295.841	295.744	Quantified	6.227	ppbv

1066

SCOEP00032738

Certification Report

Canister Number: F011836; 6L w/8hr+Cane

Can#32130:1

Date: 1/18/2005 Time: 21:15:46

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Analyte R.T. (s)	Illegible	Conc.	Units
21	1,4-Dichlorobenzene-IS	304.141	303.944	Quantified	0.000	ppbv
22	Toluene-D8	337.041	336.944	Quantified	5.575	ppbv
25	Chlorobenzene-d5-IS	376.041	376.144	Quantified	0.000	ppbv
26	Styrene	397.041	397.444	Quantified	0.009332	ppbv
28	Bromofluorobenzene	416.941	417.144	Quantified	4.455	ppbv
1	Xenon	83.541		Unknown	0.000	ppbv
2	Germacycloundecane-6,7-dione, 1, 1-diethyl-	84.441		Unknown	0.000	ppbv
3	Xenon	84.841		Unknown	0.000	ppbv
5	Carbonyl sulfide	106.941		Unknown	0.000	ppbv
7	Acetaldehyde	171.941		Unknown	0.000	ppbv
12	Methyl isocyanide	241.741		Unknown	0.000	ppbv
14	Butane, 2-methyl-3-(methylthio)-	273.441		Unknown	0.000	ppbv
16	Acetamide, N-methyl-N-[4-[4-fluoro-	280.341		Unknown	0.000	ppbv
23	Silanediol, dimethyl-	338.541		Unknown	0.000	ppbv
24	Cyclotrisiloxane, hexamethyl-	341.341		Unknown	0.000	ppbv
27	Cyclotetrasiloxane, octamethyl-	411.741		Unknown	0.000	ppbv
29	Oxime-, methoxy-phenyl-	424.241		Unknown	0.000	ppbv
30	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl	472.641		Unknown	0.000	ppbv
31	Silane, tetramethyl-	520.141		Unknown	0.000	ppbv
32	Acetophenone, 2-phenyl-2'-(trimethylsiloxy)-	524.941		Unknown	0.000	ppbv
33	p-Trimethylsiloxybenzaldehyde oxime, trimethylsilyl-	562.241		Unknown	0.000	ppbv
34	Disilane, 1,1,1,2,2-pentamethyl-2-[(613.141		Unknown	0.000	ppbv

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SCOEPA00032739

PASSED
CERTIFICATION

JAN 19 2005

Certification Report

OCS # 7204
Lucas # 6287

m 1/9/05

07A

Canister Number: F011837; 6L w/8hr+Cane

Can#94948:1

Date: 1/18/2005 Time: 21:31:14

Calibration:

Operator: Administrator

Page: 1

Dilution Factor: 1.00

ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Found	Conc.	Units
	Dichlorodifluoromethane/Fr.12/TO150114c		110.644	Not Found	0.000	ppbv
	Chloromethane/TO150114c		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114c		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114c		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	Hexane/TO150114c		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114c		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114c		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114c		293.744	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv

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Certification Report

Canister Number: F011837; 6L w/8hr+Cane

Can#94948:1

Date: 1/18/2005 Time: 21:31:14

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expanded Area (a.u.)	Type	Conc	Units
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
3	Propene	104.525	101.344	Quantified	0.1985	ppbv
6	Freon 114	136.025	134.644	Quantified	0.01231	ppbv
7	Ethanol	219.225	219.344	Quantified	0.2604	ppbv
8	Carbon disulfide	230.025	229.844	Quantified	0.01033	ppbv
9	Acetone	231.425	231.444	Quantified	0.08488	ppbv
11	2-Propanol	236.825	237.144	Quantified	0.01250	ppbv
13	Methylene Chloride	242.925	242.744	Quantified	0.05348	ppbv
14	2-Butanone	272.425	277.644	Quantified	0.01785	ppbv
17	Bromochloromethane-IS	282.025	282.044	Quantified	0.000	ppbv
18	Tetrahydrofuran	283.025	283.744	Quantified	0.03431	ppbv
19	Benzene	295.325	295.344	Quantified	0.04032	ppbv
20	1,2-Dichloroethane-d4	295.725	295.744	Quantified	6.212	ppbv
21	1,4-Dichlorobenzene-IS	303.925	303.944	Quantified	0.000	ppbv
23	Toluene-D8	336.825	336.944	Quantified	5.538	ppbv
26	Chlorobenzene-d5-IS	375.825	376.144	Quantified	0.000	ppbv

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SCOEPA00032741

Certification Report

Canister Number: F011837; 6L w/8hr+Cane

Can#94948:1

Date: 1/18/2005 Time: 21:31:14

Calibration:

Operator: Administrator

Dilution Factor: 1.00

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ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Found	Conc.	Units
27	Styrene	397.025	397.444	Quantified	0.01121	ppbv
29	Bromofluorobenzene	416.725	417.144	Quantified	4.446	ppbv
1	Acetamide, N-methyl-N-[4-[4-fluoro-1-	82.225		Unknown	0.000	ppbv
2	Xenon	84.425		Unknown	0.000	ppbv
4	3,5-Dibromosalicylaldehyde	106.525		Unknown	0.000	ppbv
5	Ethane, 1,1-difluoro-	110.925		Unknown	0.000	ppbv
10	Nitrous Oxide	235.125		Unknown	0.000	ppbv
12	Methyl isocyanide	241.525		Unknown	0.000	ppbv
15	Silanol, trimethyl-	273.225		Unknown	0.000	ppbv
16	Acetamide, N-methyl-N-[4-[4-fluoro-1-	280.125		Unknown	0.000	ppbv
22	2-Hexene, 5,5-dimethyl-, (Z)-	305.825		Unknown	0.000	ppbv
24	Silanol, dimethyl-	338.425		Unknown	0.000	ppbv
25	Cyclotrisiloxane, hexamethyl-	341.125		Unknown	0.000	ppbv
28	Cyclotetrasiloxane, octamethyl-	411.525		Unknown	0.000	ppbv
30	3-(3-Carboxy-4-hydroxyphenyl)-D-alanine	424.125		Unknown	0.000	ppbv
31	Methanethione, (2,5-dimethylphenyl)-	472.425		Unknown	0.000	ppbv
32	Silane, tetramethyl-	520.025		Unknown	0.000	ppbv
33	Benzocycloheptano[2,3,4-l,j]isoquinolin-1,2,9,10-tetraol, 4,5,6,6a-tetrahydro-, hydrobromide	524.725		Unknown	0.000	ppbv
34	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl ester	562.125		Unknown	0.000	ppbv
35	8H-Pyrano[3,4-b]pyrimido[5,4-d]furane, 5,6-dihydro-4-hydrazino-6,6-dimethyl-2-methylthio-	612.925		Unknown	0.000	ppbv

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SCOEP00032742

15007 8 T 1140
CERTIFICATION

Certification Report

Canister Number: f011514, 6L w/8hr FC,
can#9941:1

Date: 1/15/2005 Time: 13:52:01

Calibration:

Operator: Administrator

Page: 1

Dilution Factor: 1.0000

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Found	Conc.	Units
	Dichlorodifluoromethane/Fr.12/TO150114b		110.644	Not Found	0.000	ppbv
	Freon 114/TO150114b		134.644	Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706	Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114b		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114b		249.044	Not Found	0.000	ppbv
	MTBE/TO150114b		249.344	Not Found	0.000	ppbv
	Hexane/TO150114b		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114b		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114b		293.744	Not Found	0.000	ppbv
	Heptane/TO150114b		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114b		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/TO150114b		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114b		349.744	Not Found	0.000	ppbv

Certification Report

Canister Number: f011514, 6L w/8hr FC,
can#9941:1

Date: 1/15/2005 Time: 13:52:01

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Type	Conc	Units
	Tetrachloroethene/TO150114b		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114b		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114b		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114b		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114b		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544	Not Found	0.000	ppbv
	Styrene/TO150114b		397.444	Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644	Not Found	0.000	ppbv
	Cumene/TO150114b		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114b		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114b		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114b		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114b		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344	Not Found	0.000	ppbv
	Indane/TO150114b		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544	Not Found	0.000	ppbv
	Indene/TO150114b		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806	Not Found	0.000	ppbv
1	Propene	104.525	101.344	Quantified	0.2471	ppbv
3	Trichlorofluoromethane/Fr.11	201.125	201.644	Quantified	0.001819	ppbv
5	Ethanol	218.925	219.344	Quantified	0.03815	ppbv
6	Carbon disulfide	229.925	229.844	Quantified	0.006875	ppbv
7	Acetone	231.325	231.444	Quantified	0.04794	ppbv
8	2-Propanol	236.725	237.144	Quantified	0.01014	ppbv
10	Methylene Chloride	242.725	242.744	Quantified	0.1823	ppbv
12	Bromochloromethane-IS	281.825	282.044	Quantified	0.000 ✓	ppbv
13	Tetrahydrofuran	283.225	283.744	Quantified	0.02514	ppbv
13	Tetrahydrofuran	283.225	277.644	Quantified	0.03064	ppbv
14	Benzene	295.225	295.344	Quantified	0.01887	ppbv
15	1,2-Dichloroethane-d4	295.525	295.744	Quantified	4.992 ✓	ppbv
16	1,4-Dichlorobenzene-IS	303.725	303.944	Quantified	0.000 ✓	ppbv
17	Toluene-D8	336.625	336.944	Quantified	4.979 ✓	ppbv
19	Toluene	338.225	338.544	Quantified	0.004650	ppbv

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SCOEPAA00032744

Certification Report

Canister Number: f011514, 6L w/8hr FC,
can#9941:1

Date: 1/15/2005 Time: 13:52:01

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 3

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Type	Conc	Units
21	Chlorobenzene-d5-IS	375.725	376.144	Quantified	0.000 ✓	ppbv
23	Bromofluorobenzene	416.525	417.144	Quantified	4.694 ✓	ppbv
24	1,2,4-Trimethylbenzene	441.625	442.244	Quantified	0.003314	ppbv
2	Benzaldehyde, 3,4-methylenedioxy- 2-nitro-,	106.425		Unknown	0.000	ppbv
4	dl-Alanine	213.325		Unknown	0.000	ppbv
9	Methyl isocyanide	241.325		Unknown	0.000	ppbv
11	Methanesulfonyl chloride	279.625		Unknown	0.000	ppbv
18	Silanediol, dimethyl-	337.625		Unknown	0.000	ppbv
20	Cyclotrisiloxane, hexamethyl-	340.925		Unknown	0.000	ppbv
22	Cyclotetrasiloxane, octamethyl-	411.325		Unknown	0.000	ppbv
25	Rosolic acid, CI 43800	468.025		Unknown	0.000	ppbv
26	Tetrasiloxane, 1,1,3,3,5,5,7,7- octamethyl-	472.325		Unknown	0.000	ppbv
27	Propadiene, 1,1-diphenyl-3- trimethylsilyl-	519.825		Unknown	0.000	ppbv
28	Acetophenone, 2-phenyl-2'-(trimethylsiloxy)-	524.525		Unknown	0.000	ppbv
29	Benzoic acid, 3-methyl-2- trimethylsilyloxy-, trimethylsilyl	561.925		Unknown	0.000	ppbv
30	p-Trimethylsiloxybenzaldehyde oxime, trimethylsilyl-	612.825		Unknown	0.000	ppbv

1073

SCOEP00032745

IAN 18 2005

CGS 32520

4/1/18/05

09A

Certification Report

Canister Number: F011747; 6L w/8hr+Cane

Can#25275:1

Date: 1/18/2005 Time: 02:27:01

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 1

ATL TOF CERTIFICATION

Peak #	Name	RT (S)	Expected Analyte RT (S)	Value	Conc	Units
	Dichlorodifluoromethane/Fr.12/ TO150114c		110.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c		157.744	Not Found	0.000	ppbv
	Chloroethane/TO150114c		189.544	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114c		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114c		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114c		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114c		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114c		249.044	Not Found	0.000	ppbv
	MTBE/TO150114c		249.344	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114c		283.144	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c		289.644	Not Found	0.000	ppbv
	Heptane/TO150114c		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114c		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114c		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114c		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c		334.644	Not Found	0.000	ppbv
	Toluene/TO150114c		338.544	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114c		344.844	Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c		349.744	Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv

1074

Certification Report

Canister Number: F011747; 6L w/8hr+Cane

Can#25275:1

Date: 1/18/2005 Time: 02:27:01

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Found	Conc.	Units
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114c		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114c		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
1	Propene	104.741	101.344	Quantified	0.3538	ppbv
3	Freon 114	136.441	134.644	Quantified	0.01380	ppbv
4	Chloromethane	141.441	139.644	Quantified	0.003206	ppbv
7	Bromomethane	182.541	181.844	Quantified	0.005198	ppbv
8	Isopentane	192.141	191.706	Quantified	0.1178	ppbv
9	Ethanol	219.241	219.344	Quantified	0.02523	ppbv
10	Carbon disulfide	230.241	229.844	Quantified	0.01483	ppbv
12	Acetone	231.641	231.444	Quantified	0.1290	ppbv
13	2-Propanol	237.241	237.144	Quantified	0.007233	ppbv
14	Methylene Chloride	243.041	242.744	Quantified	0.02311	ppbv
16	Hexane	254.141	253.844	Quantified	0.01138	ppbv
17	2-Butanone	272.641	277.644	Quantified	0.01841	ppbv
20	Bromochloromethane-IS	282.241	282.044	Quantified	0.000	ppbv
21	Tetrahydrofuran	283.241	283.744	Quantified	0.02221	ppbv
22	Cyclohexane	286.141	286.244	Quantified	0.006253	ppbv
22	Cyclohexane	286.141	285.806	Quantified	0.03945	ppbv
23	2,2,4-Trimethylpentane	293.841	293.744	Quantified	0.03502	ppbv
24	Benzene	295.541	295.344	Quantified	0.03910	ppbv
25	1,2-Dichloroethane-d4	295.841	295.744	Quantified	5.150	ppbv
26	1,4-Dichlorobenzene-IS	304.141	303.944	Quantified	0.000	ppbv

1075

SCOEPA00032747

Certification Report

Canister Number: F011747; 6L w/8hr+Cane

Can#25275:1

Date: 1/18/2005 Time: 02:27:01

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 3

ATL TOF

CERTIFICATION

Peak	Name	RT (s)	Expected Analyte RT (s)	Type	Conc.	Units
27	Toluene-D8	337.041	336.944	Quantified	4.954 ✓	ppbv
30	Chlorobenzene-d5-IS	376.041	376.144	Quantified	0.000 ✓	ppbv
31	Styrene	397.141	397.444	Quantified	0.005071	ppbv
33	Bromofluorobenzene	416.941	417.144	Quantified	4.317 ✓	ppbv
2	Morphinan-3,14-diol, 4,5-epoxy-, (5a)-	106.841		Unknown	0.000	ppbv
5	2-Butene	151.541		Unknown	0.000	ppbv
6	Cystine	172.041		Unknown	0.000	ppbv
11	Cystine	230.941		Unknown	0.000	ppbv
15	Cyclobutane, 1,1-dimethyl-2-octyl-	246.641		Unknown	0.000	ppbv
18	Silanol, trimethyl-	273.341		Unknown	0.000	ppbv
19	Hexane, 3,3,4,4-tetrafluoro-	280.241		Unknown	0.000	ppbv
28	Silanediol, dimethyl-	338.441		Unknown	0.000	ppbv
29	Cyclotrisiloxane, hexamethyl-	341.241		Unknown	0.000	ppbv
32	Cyclotetrasiloxane, octamethyl-	411.741		Unknown	0.000	ppbv
34	Phenol	468.341		Unknown	0.000	ppbv
35	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl	472.641		Unknown	0.000	ppbv
36	3-Fluoro-3-(2-oxo-cyclopentylsulfanyl)-2-trifluoromethyl-acrylic acid ethyl ester	475.141		Unknown	0.000	ppbv
37	Silane, tetramethyl-	520.141		Unknown	0.000	ppbv
38	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	562.241		Unknown	0.000	ppbv
39	Silane, [[3,3-dimethyl-4-methylene-2-(trimethylsilyl)-1-cyclopenten-1-yl]	613.041		Unknown	0.000	ppbv

1076

SCOEP00032748

**PASSED
CERTIFICATION**

JAN 18 2005

CGS-32520

ss 1/18/05

Certification Report

10A

Canister Number: F011742; 6L w/8hr+Cane

Can#12079:1

Date: 1/18/2005 Time: 01:09:33

Calibration:

Operator: Administrator

Page: 1

Dilution Factor: 1.0

ATL TOF

CERTIFICATION

Peak	Name	Retention Time (min)	Expected Analyte (P. 1) (min)	Unit	Conc.	Units
	Dichlorodifluoromethane/Fr.12/ TO150114c	110.644		Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c	154.244		Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c	157.744		Not Found	0.000	ppbv
	Bromomethane/TO150114c	181.844		Not Found	0.000	ppbv
	Chloroethane/TO150114c	189.544		Not Found	0.000	ppbv
	Isopentane/TO150114c	191.706		Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114c	201.644		Not Found	0.000	ppbv
	Freon 113/TO150114c	224.244		Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c	224.503		Not Found	0.000	ppbv
	3-Chloroprene/TO150114c	237.944		Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114c	249.044		Not Found	0.000	ppbv
	MTBE/TO150114c	249.344		Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c	261.644		Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c	262.544		Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c	276.044		Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c	277.144		Not Found	0.000	ppbv
	Chloroform/TO150114c	283.144		Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c	286.744		Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c	289.644		Not Found	0.000	ppbv
	Heptane/TO150114c	297.444		Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c	297.803		Not Found	0.000	ppbv
	Thiophene/TO150114c	300.406		Not Found	0.000	ppbv
	Trichloroethene/TO150114c	309.544		Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c	316.144		Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c	318.944		Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c	321.744		Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114c	331.744		Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c	334.644		Not Found	0.000	ppbv
	Toluene/TO150114c	338.544		Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114c	344.844		Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c	349.744		Not Found	0.000	ppbv
	Tetrachloroethene/TO150114c	351.244		Not Found	0.000	ppbv
	2-Hexanone/TO150114c	354.444		Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c	359.944		Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c	364.244		Not Found	0.000	ppbv

1077

SCOEP00032749

Certification Report

Canister Number: F011742; 6L w/8hr+Cane

Can#12079:1

Date: 1/18/2005 Time: 01:09:33

Calibration:

Operator: Administrator

Page: 2

Dilution Factor: 1.0

ATL TOF

CERTIFICATION

Peak#	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc.	Units
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Styrene/TO150114c		397.444	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114c		422.144	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
4	Propene	104.178	101.344	Quantified	0.3071	ppbv
6	Chloromethane	135.478	139.644	Quantified	0.002963	ppbv
7	Freon 114	135.878	134.644	Quantified	0.01534	ppbv
11	Ethanol	226.578	219.344	Quantified	0.04765	ppbv
12	Carbon disulfide	229.678	229.844	Quantified	0.009603	ppbv
13	2-Propanol	230.178	237.144	Quantified	0.07345	ppbv
14	Acetone	231.078	231.444	Quantified	0.07569	ppbv
15	2-Methylpentane	238.878	239.106	Quantified	0.04910	ppbv
16	Methylene Chloride	242.478	242.744	Quantified	0.02415	ppbv
18	Hexane	253.078	253.844	Quantified	0.003578	ppbv
21	2-Butanone	276.878	277.644	Quantified	0.02773	ppbv
23	Bromochloromethane-IS	281.678	282.044	Quantified	0.000 ✓	ppbv
24	Tetrahydrofuran	282.678	283.744	Quantified	0.06183	ppbv
25	Cyclohexane	285.678	286.244	Quantified	0.01485	ppbv
25	Cyclohexane	285.678	285.806	Quantified	0.04464	ppbv
26	2,2,4-Trimethylpentane	293.378	293.744	Quantified	0.02820	ppbv
27	Benzene	294.978	295.344	Quantified	0.08350	ppbv
28	1,2-Dichloroethane-d4	295.278	295.744	Quantified	5.194 ✓	ppbv
29	1,4-Dichlorobenzene-IS	303.578	303.944	Quantified	0.000 ✓	ppbv
30	Toluene-D8	336.478	336.944	Quantified	4.973 ✓	ppbv
33	Chlorobenzene-d5-IS	375.478	376.144	Quantified	0.000 ✓	ppbv
34	Cumene	408.178	409.044	Quantified	0.005283	ppbv
36	Bromofluorobenzene	416.278	417.144	Quantified	4.318 ✓	ppbv
37	Propylbenzene	422.678	423.544	Quantified	0.01195	ppbv
38	1,3,5-Trimethylbenzene	428.578	427.344	Quantified	0.002404	ppbv

1078

SCOEP00032750

Certification Report

Canister Number: F011742; 6L w/8hr+Cane

Can#12079:1

Date: 1/18/2005 Time: 01:09:33

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 3

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected/Analyte RT (s)	Peak	Conc	Unit
38	1,3,5-Trimethylbenzene	428.578	429.444	Quantified	0.002373	ppbv
39	1,2,4-Trimethylbenzene	441.478	442.244	Quantified	0.008201	ppbv
40	alpha-Chlorotoluene	459.878	460.344	Quantified	0.005288	ppbv
41	Indane	461.878	462.106	Quantified	0.008278	ppbv
1	Nitrous Oxide	81.278		Unknown	0.000	ppbv
2	2-Naphthalenamine, 1,2,3,4-tetrahydro-N-(1-methylethyl)-N-(phenylmethyl)-	84.278		Unknown	0.000	ppbv
3	Xenon	84.978		Unknown	0.000	ppbv
5	Carbonyl sulfide	106.478		Unknown	0.000	ppbv
8	Acetaldehyde	171.578		Unknown	0.000	ppbv
9	Butane, 2-methyl-	191.578		Unknown	0.000	ppbv
10	Propane	205.078		Unknown	0.000	ppbv
17	Pentane, 3-methyl-	246.078		Unknown	0.000	ppbv
19	Cyclopentane, methyl-	269.678		Unknown	0.000	ppbv
20	Silanol, trimethyl-	272.878		Unknown	0.000	ppbv
22	Methanesulfonic anhydride	279.678		Unknown	0.000	ppbv
31	Silanediol, dimethyl-	337.878		Unknown	0.000	ppbv
32	Cyclotrisiloxane, hexamethyl-	340.678		Unknown	0.000	ppbv
35	Cyclotetrasiloxane, octamethyl-	411.178		Unknown	0.000	ppbv
42	Phenol	467.778		Unknown	0.000	ppbv
43	Tetrasiloxane, 1,1,3,3,5,5,7,7-octamethyl-	472.078		Unknown	0.000	ppbv
44	1,3,8-p-Menthatriene	474.078		Unknown	0.000	ppbv
45	2-Cyclohexene-1-acetic acid, à-(methylthio)-3-(trimethylsilyloxy)-, methyl ester	505.878		Unknown	0.000	ppbv
46	3-Oxa-6-thia-2,7-disilaooctane, 2,2,7, 7-tetramethyl-	519.678		Unknown	0.000	ppbv
47	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	561.778		Unknown	0.000	ppbv
48	8H-Pyrano[3,4-b]pyrimido[5,4-d]furane, 5,6-dihydro-4-hydrazino-6,6-	612.578		Unknown	0.000	ppbv

1079

SCOEPAA00032751

1800Z 8 JAN 2005

Certification Report

11A

CERTIFICATION

Canister Number: f011521, 6L w/8hr FC,
can#10794:1

Date: 1/15/2005 Time: 15:40:25

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 1

ATL TOF

CERTIFICATION

Peak	Name	RT (s)	Expected Value (ppbv)	Type	Conc	Units
	Freon 114/TO150114b		134.644	Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114b		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503	Not Found	0.000	ppbv
	2-Propanol/TO150114b		237.144	Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114b		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114b		249.044	Not Found	0.000	ppbv
	MTBE/TO150114b		249.344	Not Found	0.000	ppbv
	Hexane/TO150114b		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114b		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114b		293.744	Not Found	0.000	ppbv
	Heptane/TO150114b		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114b		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114b		344.844	Not Found	0.000	ppbv

Certification Report

Canister Number: f011521, 6L w/8hr FC,
can#10794:1

Date: 1/15/2005 Time: 15:40:25

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Analyte R.T. (s)	Unit	Conc	Unit
	1,1,2-Trichloroethane/TO150114b		349.744	Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114b		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114b		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114b		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114b		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544	Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644	Not Found	0.000	ppbv
	Cumene/TO150114b		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114b		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114b		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114b		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114b		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114b		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344	Not Found	0.000	ppbv
	Indane/TO150114b		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544	Not Found	0.000	ppbv
	Indene/TO150114b		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806	Not Found	0.000	ppbv
1	Propene	104.525	101.344	Quantified	0.1506	ppbv
2	Dichlorodifluoromethane/Fr.12	113.025	110.644	Quantified	0.004251	ppbv
3	Ethanol	211.625	219.344	Quantified	0.2778	ppbv
6	Carbon disulfide	230.025	229.844	Quantified	0.009792	ppbv
7	Acetone	231.425	231.444	Quantified	0.08177	ppbv
9	Methylene Chloride	242.825	242.744	Quantified	0.09940	ppbv
10	2-Butanone	272.525	277.644	Quantified	0.01480	ppbv
12	Bromochloromethane-IS	281.925	282.044	Quantified	0.000 ✓	ppbv
13	Tetrahydrofuran	283.425	283.744	Quantified	0.02059	ppbv
14	Benzene	295.225	295.344	Quantified	0.02086	ppbv
15	1,2-Dichloroethane-d4	295.625	295.744	Quantified	5.054 ✓	ppbv
16	1,4-Dichlorobenzene-IS	303.825	303.944	Quantified	0.000 ✓	ppbv
18	Toluene-D8	336.725	336.944	Quantified	4.942 ✓	ppbv
20	Toluene	338.325	338.544	Quantified	0.004210	ppbv
22	Tetrachloroethene	350.925	351.244	Quantified	0.001880	ppbv

1081

SCOEPAA00032753

Certification Report

Canister Number: f011521, 6L w/8hr FC,
can#10794:1

Date: 1/15/2005 Time: 15:40:25

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak #	Name	IR II (s)	Expected Analyte IR II (s)	IR type	Conc	Units
23	Chlorobenzene-d5-IS	375.825	376.144	Quantified	0.000 ✓	ppbv
24	Styrene	396.925	397.444	Quantified	0.006674	ppbv
26	Bromofluorobenzene	416.625	417.144	Quantified	4.640 ✓	ppbv
4	17 α -Ethinyl-17 α -hydroxy-5 α -estrane-3-one	212.425		Unknown	0.000	ppbv
5	2-Pentanamine, 4-methyl-	212.925		Unknown	0.000	ppbv
8	Methyl isocyanide	241.425		Unknown	0.000	ppbv
11	Methanesulfonic anhydride	279.725		Unknown	0.000	ppbv
17	1-Oxaspiro[4.5]decan-3-carboxylic acid, 2-oxo-4-cyano-, ethyl ester	305.825		Unknown	0.000	ppbv
19	Silanediol, dimethyl-	337.725		Unknown	0.000	ppbv
21	Cyclotrisiloxane, hexamethyl-	341.025		Unknown	0.000	ppbv
25	Cyclotetrasiloxane, octamethyl-	411.425		Unknown	0.000	ppbv
27	Tetrasiloxane, 1,1,3,3,5,5,7,7-octamethyl-	472.325		Unknown	0.000	ppbv
28	3-Oxa-6-thia-2,7-disilaooctane, 2,2,7,7-tetramethyl-	519.925		Unknown	0.000	ppbv
29	Acetophenone, 2-phenyl-2'-(trimethylsiloxy)-	524.725		Unknown	0.000	ppbv
30	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	562.125		Unknown	0.000	ppbv
31	5-(p-Aminophenyl)-4-(O-tolyl)-2-thiazolamine	612.925		Unknown	0.000	ppbv

18 JAN 2005
NOTIFICATION
PASSED

Certification Report

12A

Canister Number: f011522, 6L w/8hr FC,
can#12711:1

Date: 1/15/2005 Time: 15:55:54

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 1

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analysis RT (s)	Type	Conc.	Units
	Dichlorodifluoromethane/Fr.12/TO150114b		110.644	Not Found	0.000	ppbv
	Freon 114/TO150114b		134.644	Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114b		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114b		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114b		249.044	Not Found	0.000	ppbv
	MTBE/TO150114b		249.344	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114b		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114b		293.744	Not Found	0.000	ppbv
	Heptane/TO150114b		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114b		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644	Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/TO150114b		344.844	Not Found	0.000	ppbv

Certification Report

Canister Number: f011522, 6L w/8hr FC,
can#12711:1

Date: 1/15/2005 Time: 15:55:54

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Amt (ug)	R.T. (s)	Type	Conc.	Units
	1,1,2-Trichloroethane/TO150114b		349.744		Not Found	0.000	ppbv
	Tetrachloroethene/TO150114b		351.244		Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444		Not Found	0.000	ppbv
	Dibromochloromethane/TO150114b		359.944		Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114b		364.244		Not Found	0.000	ppbv
	Chlorobenzene/TO150114b		377.144		Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444		Not Found	0.000	ppbv
	m,p-Xylene/TO150114b		382.144		Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544		Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644		Not Found	0.000	ppbv
	Cumene/TO150114b		409.044		Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114b		422.144		Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544		Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444		Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114b		452.944		Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114b		455.844		Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344		Not Found	0.000	ppbv
	Indane/TO150114b		462.106		Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544		Not Found	0.000	ppbv
	Indene/TO150114b		469.306		Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344		Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544		Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806		Not Found	0.000	ppbv
1	Propene	104.494	101.344		Quantified	0.2308	ppbv
2	Ethanol	219.794	219.344		Quantified	0.1003	ppbv
4	Carbon disulfide	229.894	229.844		Quantified	0.01013	ppbv
5	Acetone	231.294	231.444		Quantified	0.08508	ppbv
6	2-Propanol	236.794	237.144		Quantified	0.01240	ppbv
8	Methylene Chloride	242.794	242.744		Quantified	0.04771	ppbv
9	Hexane	253.794	253.844		Quantified	0.005700	ppbv
12	Bromochloromethane-IS	281.894	282.044		Quantified	0.000 ✓	ppbv
13	Tetrahydrofuran	282.994	283.744		Quantified	0.02928	ppbv
13	Tetrahydrofuran	282.994	277.644		Quantified	0.01900	ppbv
14	Benzene	295.194	295.344		Quantified	0.02150	ppbv
15	1,2-Dichloroethane-d4	295.594	295.744		Quantified	5.099 ✓	ppbv
16	1,4-Dichlorobenzene-IS	303.794	303.944		Quantified	0.000 ✓	ppbv
17	Toluene-D8	336.694	336.944		Quantified	4.915 ✓	ppbv
19	Toluene	338.294	338.544		Quantified	0.003836	ppbv
21	Chlorobenzene-d5-IS	375.694	376.144		Quantified	0.000 ✓	ppbv

1084

SCOEPAA00032756

Certification Report

Canister Number: f011522, 6L w/8hr FC,
can#12711:1

Date: 1/15/2005 Time: 15:55:54

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected / Analyte RT (s)	Type	Conc.	Units
22	Styrene	396.794	397.444	Quantified	0.007517	ppbv
24	Bromofluorobenzene	416.594	417.144	Quantified	4.684	ppbv
26	4-Ethyltoluene	425.994	427.344	Quantified	0.003618	ppbv
27	1,2,4-Trimethylbenzene	441.794	442.244	Quantified	0.007009	ppbv
3	Carbon dioxide	223.794		Unknown	0.000	ppbv
7	Methyl isocyanide	241.394		Unknown	0.000	ppbv
10	Silanol, trimethyl-	272.994		Unknown	0.000	ppbv
11	Methanesulfonyl chloride	279.794		Unknown	0.000	ppbv
18	Silanediol, dimethyl-	337.894		Unknown	0.000	ppbv
20	Cyclotrisiloxane, hexamethyl-	340.994		Unknown	0.000	ppbv
23	Cyclotetrasiloxane, octamethyl-	411.394		Unknown	0.000	ppbv
25	Oxime-, methoxy-phenyl-	423.894		Unknown	0.000	ppbv
28	Phenol	468.094		Unknown	0.000	ppbv
29	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl	472.394		Unknown	0.000	ppbv
30	3-Oxa-6-thia-2,7-disilaooctane, 2,2,7, 7-tetramethyl-	519.894		Unknown	0.000	ppbv
31	Benzocycloheptano[2,3,4-l,j] isoquinolin-1,2,9,10-tetraol, 4,5,6,6a- tetrahydro-,	524.694		Unknown	0.000	ppbv
32	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	561.994		Unknown	0.000	ppbv
33	1-(4-Nitrophenyl)-3,6-diazahomoadamantan-9-ol	612.894		Unknown	0.000	ppbv

Certification Report

Canister Number: f011516, 6L w/8hr FC,
can#21006:1

Date: 1/15/2005 Time: 14:23:00

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 1

ATL TOF

CERTIFICATION

Peak	Name	RT (s)	Expected RT (s)	Found RT (s)	Conc.	Units
	Dichlorodifluoromethane/Fr.12/TO150114b		110.644	Not Found	0.000	ppbv
	Freon 114/TO150114b		134.644	Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644	Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244	Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744	Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844	Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544	Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706	Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/TO150114b		201.644	Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244	Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503	Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944	Not Found	0.000	ppbv
	2-Methylpentane/TO150114b		239.106	Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/TO150114b		249.044	Not Found	0.000	ppbv
	MTBE/TO150114b		249.344	Not Found	0.000	ppbv
	Hexane/TO150114b		253.844	Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644	Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544	Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044	Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144	Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144	Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806	Not Found	0.000	ppbv
	Cyclohexane/TO150114b		286.244	Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744	Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644	Not Found	0.000	ppbv
	2,2,4-Trimethylpentane/TO150114b		293.744	Not Found	0.000	ppbv
	Heptane/TO150114b		297.444	Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803	Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406	Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544	Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144	Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944	Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744	Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/TO150114b		331.744	Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644	Not Found	0.000	ppbv

Certification Report

Canister Number: f011516, 6L w/8hr FC,
can#21006:1

Date: 1/15/2005 Time: 14:23:00

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak	Name	R.T. (s)	Expected Amt (ug)	R.T. (s)	Type	Conc	Units
	trans-1,3-Dichloropropene/ TO150114b		344.844		Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114b		349.744		Not Found	0.000	ppbv
	Tetrachloroethene/TO150114b		351.244		Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444		Not Found	0.000	ppbv
	Dibromochloromethane/TO150114b		359.944		Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444		Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544		Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644		Not Found	0.000	ppbv
	Cumene/TO150114b		409.044		Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114b		422.144		Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544		Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114b		427.344		Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444		Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114b		442.244		Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344		Not Found	0.000	ppbv
	Indane/TO150114b		462.106		Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544		Not Found	0.000	ppbv
	Indene/TO150114b		469.306		Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344		Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544		Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806		Not Found	0.000	ppbv
1	Propene	104.772	101.344		Quantified	0.2345	ppbv
2	Ethanol	219.372	219.344		Quantified	0.3894	ppbv
4	Carbon disulfide	230.272	229.844		Quantified	0.009588	ppbv
5	Acetone	231.672	231.444		Quantified	0.08328	ppbv
6	2-Propanol	237.372	237.144		Quantified	0.006388	ppbv
8	Methylene Chloride	243.072	242.744		Quantified	0.07814	ppbv
9	2-Butanone	272.672	277.644		Quantified	0.01193	ppbv
11	Bromochloromethane-IS	282.272	282.044		Quantified	0.000 ✓	ppbv
12	Tetrahydrofuran	283.472	283.744		Quantified	0.02199	ppbv
13	Benzene	295.472	295.344		Quantified	0.02089	ppbv
14	1,2-Dichloroethane-d4	295.872	295.744		Quantified	4.973 ✓	ppbv
15	1,4-Dichlorobenzene-IS	304.172	303.944		Quantified	0.000 ✓	ppbv
17	Toluene-D8	337.072	336.944		Quantified	4.914 ✓	ppbv
19	Toluene	338.672	338.544		Quantified	0.004628	ppbv
21	1,2-Dibromoethane	364.272	364.244		Quantified	0.002751	ppbv
22	Chlorobenzene-d5-IS	376.072	376.144		Quantified	0.000 ✓	ppbv
23	Chlorobenzene	376.972	377.144		Quantified	0.002193	ppbv

1087

SCOEPAA00032759

Certification Report

Canister Number: f011516, 6L w/8hr FC,
can#21006:1

Date: 1/15/2005 Time: 14:23:00

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 3

ATL TOF

CERTIFICATION

Peak #	Name	Ret. (s)	Expected Analyte Ret. (s)	Type	Conc	Units
24	m,p-Xylene	381.872	382.144	Quantified	0.003370	ppbv
25	Styrene	397.372	397.444	Quantified	0.009009	ppbv
27	Bromofluorobenzene	416.972	417.144	Quantified	4.737 ✓	ppbv
28	1,3-Dichlorobenzene	452.772	452.944	Quantified	0.001478	ppbv
29	1,4-Dichlorobenzene	455.772	455.844	Quantified	0.002879	ppbv
3	Nitrous Oxide	220.172		Unknown	0.000	ppbv
7	Methyl isocyanide	241.672		Unknown	0.000	ppbv
10	Hexane, 3,3,4,4-tetrafluoro-	280.072		Unknown	0.000	ppbv
16	2-Hexene, 5,5-dimethyl-, (Z)-	305.972		Unknown	0.000	ppbv
18	Silanediol, dimethyl-	338.072		Unknown	0.000	ppbv
20	Cyclotrisiloxane, hexamethyl-	341.272		Unknown	0.000	ppbv
26	Cyclotetrasiloxane, octamethyl-	411.772		Unknown	0.000	ppbv
30	Methanethione, (2,5-dimethylphenyl)	472.672		Unknown	0.000	ppbv
31	Silane, tetramethyl-	520.272		Unknown	0.000	ppbv
32	Acetophenone, 2-phenyl-2'-(trimethylsiloxy)-	524.972		Unknown	0.000	ppbv
33	3,7,10-Trimethyl-8-chloro-2,4(3H, 10H)-benzo[g]pteridindione	546.972		Unknown	0.000	ppbv
34	Benzoic acid, 3-methyl-2- trimethylsilyloxy-, trimethylsilyl	562.372		Unknown	0.000	ppbv
35	Mercaptoacetic acid, bis(trimethylsilyl)-	613.272		Unknown	0.000	ppbv

1088

SCOEPAA00032760

PASSED
CERTIFICATION

JAN 18 2005

UGS 32520
4/1/16/05

Certification Report

14A

Canister Number: f011510, 6L w/8hr FC,
can#34420:1

Date: 1/15/2005 Time: 12:50:05

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 1

ATL TOF

CERTIFICATION

Peak	Name	R. F. (s)	Integrated Area (s)	R. F. (s)	Units	Conc	Units
	Dichlorodifluoromethane/Fr.12/ TO150114b		110.644		Not Found	0.000	ppbv
	Freon 114/TO150114b		134.644		Not Found	0.000	ppbv
	Chloromethane/TO150114b		139.644		Not Found	0.000	ppbv
	Vinyl Chloride/TO150114b		154.244		Not Found	0.000	ppbv
	1,3-Butadiene/TO150114b		157.744		Not Found	0.000	ppbv
	Bromomethane/TO150114b		181.844		Not Found	0.000	ppbv
	Chloroethane/TO150114b		189.544		Not Found	0.000	ppbv
	Isopentane/TO150114b		191.706		Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114b		201.644		Not Found	0.000	ppbv
	Freon 113/TO150114b		224.244		Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114b		224.503		Not Found	0.000	ppbv
	3-Chloroprene/TO150114b		237.944		Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114b		249.044		Not Found	0.000	ppbv
	MTBE/TO150114b		249.344		Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114b		261.644		Not Found	0.000	ppbv
	Vinyl Acetate/TO150114b		262.544		Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114b		276.044		Not Found	0.000	ppbv
	Ethyl Acetate/TO150114b		277.144		Not Found	0.000	ppbv
	Chloroform/TO150114b		283.144		Not Found	0.000	ppbv
	2,3-Dimethylpentane/TO150114b		285.806		Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114b		286.744		Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114b		289.644		Not Found	0.000	ppbv
	Heptane/TO150114b		297.444		Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114b		297.803		Not Found	0.000	ppbv
	Thiophene/TO150114b		300.406		Not Found	0.000	ppbv
	Trichloroethene/TO150114b		309.544		Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114b		316.144		Not Found	0.000	ppbv
	1,4-Dioxane/TO150114b		318.944		Not Found	0.000	ppbv
	Bromodichloromethane/TO150114b		321.744		Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114b		331.744		Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114b		334.644		Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114b		344.844		Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114b		349.744		Not Found	0.000	ppbv
	Tetrachloroethene/TO150114b		351.244		Not Found	0.000	ppbv
	2-Hexanone/TO150114b		354.444		Not Found	0.000	ppbv

1089

SCOEP00032761

Certification Report

Canister Number: f011510, 6L w/8hr FC,
can#34420:1

Date: 1/15/2005 Time: 12:50:05

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Standard Analyte RT (s)	Type	Conc.	Units
	Dibromochloromethane/TO150114b		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114b		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114b		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114b		378.444	Not Found	0.000	ppbv
	o-Xylene/TO150114b		396.544	Not Found	0.000	ppbv
	Styrene/TO150114b		397.444	Not Found	0.000	ppbv
	Bromoform/TO150114b		406.644	Not Found	0.000	ppbv
	Cumene/TO150114b		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/ TO150114b		422.144	Not Found	0.000	ppbv
	Propylbenzene/TO150114b		423.544	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114b		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114b		429.444	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114b		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114b		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114b		460.344	Not Found	0.000	ppbv
	Indane/TO150114b		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114b		467.544	Not Found	0.000	ppbv
	Indene/TO150114b		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114b		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114b		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114b		517.806	Not Found	0.000	ppbv
1	Propene	104.231	101.344	Quantified	0.2161	ppbv
7	Ethanol	218.631	219.344	Quantified	0.06942	ppbv
8	Carbon disulfide	229.731	229.844	Quantified	0.01059	ppbv
10	Acetone	230.931	231.444	Quantified	0.1892	ppbv
11	2-Propanol	236.731	237.144	Quantified	0.009248	ppbv
12	2-Methylpentane	238.831	239.106	Quantified	0.07349	ppbv
14	Methylene Chloride	242.531	242.744	Quantified	0.04296	ppbv
16	Hexane	253.531	253.844	Quantified	0.02391	ppbv
20	2-Butanone	276.831	277.644	Quantified	0.04489	ppbv
22	Bromochloromethane-IS	281.731	282.044	Quantified	0.000 ✓	ppbv
23	Tetrahydrofuran	282.931	283.744	Quantified	0.03625	ppbv
24	Cyclohexane	285.731	286.244	Quantified	0.01900	ppbv
25	2,2,4-Trimethylpentane	293.331	293.744	Quantified	0.01060	ppbv
26	Benzene	295.031	295.344	Quantified	0.03456	ppbv
27	1,2-Dichloroethane-d4	295.331	295.744	Quantified	4.959 ✓	ppbv
29	1,4-Dichlorobenzene-IS	303.631	303.944	Quantified	0.000 ✓	ppbv
30	Toluene-D8	336.531	336.944	Quantified	5.046 ✓	ppbv
31	Toluene	337.931	338.544	Quantified	0.01298	ppbv

1090

SCOEPAA00032762

Certification Report

Canister Number: f011510, 6L w/8hr FC,
can#34420:1

Date: 1/15/2005 Time: 12:50:05

Calibration:

Operator: Administrator

Dilution Factor: 1.0000

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ATL TOF

CERTIFICATION

Peak #	Name	RT (s)	Expected Analyte RT (s)	Type	Conc	Units
33	Chlorobenzene-d5-IS	375.531	376.144	Quantified	0.000 ✓	ppbv
34	m,p-Xylene	381.431	382.144	Quantified	0.005290	ppbv
36	Bromofluorobenzene	416.431	417.144	Quantified	4.720 ✓	ppbv
38	1,2,4-Trimethylbenzene	441.531	442.244	Quantified	0.002781	ppbv
2	1,3-Propanediol, 2-amino-1-(4-nitrophenyl)-, (R*,R*)-(ñ)-	106.331		Unknown	0.000	ppbv
3	Butane	152.131		Unknown	0.000	ppbv
4	Pyrazole[4,5-b]imidazole, 1-formyl-3	171.531		Unknown	0.000	ppbv
5	Butane, 2-methyl-	191.531		Unknown	0.000	ppbv
6	Morphinan-3,14-diol, 4,5-epoxy-, (5à)-	205.131		Unknown	0.000	ppbv
9	Carbon dioxide	230.531		Unknown	0.000	ppbv
13	1-Oxaspiro[4.5]decan-3-carboxylic acid, 2-oxo-4-cyano-, ethyl ester	241.231		Unknown	0.000	ppbv
15	Propane, 1-(ethenyloxy)-2-methyl-	246.131		Unknown	0.000	ppbv
17	Cyclopenta[c]cyclohexa[e]perhydro 1,2-oxazine,	269.731		Unknown	0.000	ppbv
18	Silanol, trimethyl-	272.831		Unknown	0.000	ppbv
19	Acetic acid ethenyl ester	273.231		Unknown	0.000	ppbv
21	Hexane, 3,3,4,4-tetrafluoro-	279.731		Unknown	0.000	ppbv
28	4-Penten-2-one	302.531		Unknown	0.000	ppbv
32	Cyclotrisiloxane, hexamethyl-	340.731		Unknown	0.000	ppbv
35	Cyclotetrasiloxane, octamethyl-	411.231		Unknown	0.000	ppbv
37	Oxime-, methoxy-phenyl-	423.831		Unknown	0.000	ppbv
39	Tetrasiloxane, 1,1,3,3,5,5,7,7-octamethyl-	472.131		Unknown	0.000	ppbv
40	Silane, [[3,3-dimethyl-4-methylene-2-(trimethylsilyl)-1-cyclopenten-1-yl]	519.731		Unknown	0.000	ppbv
41	Phenol, 4,4'-(1-methylethylidene)bis[	524.431		Unknown	0.000	ppbv
42	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	561.831		Unknown	0.000	ppbv
43	Acetic acid, [o-(trimethylsiloxy) phenyl]-, trimethylsilyl ester	612.731		Unknown	0.000	ppbv

PASSED
CERTIFICATION

JAN 18 2005

Certification Report

Canister Number: F011746; 6L w/8hr+Cane

Can#34335:1

Date: 1/18/2005 Time: 02:11:34

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 1

CGS 32520
1/18/05
15A

ATL TOF

CERTIFICATION

Peak	Name	RT (S)	Conc (ppbv)	Found	Conc	Units
	Dichlorodifluoromethane/Fr.12/ TO150114c	110.644		Not Found	0.000	ppbv
	Chloromethane/TO150114c	139.644		Not Found	0.000	ppbv
	Vinyl Chloride/TO150114c	154.244		Not Found	0.000	ppbv
	1,3-Butadiene/TO150114c	157.744		Not Found	0.000	ppbv
	Bromomethane/TO150114c	181.844		Not Found	0.000	ppbv
	Chloroethane/TO150114c	189.544		Not Found	0.000	ppbv
	Isopentane/TO150114c	191.706		Not Found	0.000	ppbv
	Trichlorofluoromethane/Fr.11/ TO150114c	201.644		Not Found	0.000	ppbv
	Freon 113/TO150114c	224.244		Not Found	0.000	ppbv
	1,1-Dichloroethene/TO150114c	224.503		Not Found	0.000	ppbv
	3-Chloroprene/TO150114c	237.944		Not Found	0.000	ppbv
	2-Methylpentane/TO150114c	239.106		Not Found	0.000	ppbv
	trans-1,2-Dichloroethene/ TO150114c	249.044		Not Found	0.000	ppbv
	MTBE/TO150114c	249.344		Not Found	0.000	ppbv
	Hexane/TO150114c	253.844		Not Found	0.000	ppbv
	1,1-Dichloroethane/TO150114c	261.644		Not Found	0.000	ppbv
	Vinyl Acetate/TO150114c	262.544		Not Found	0.000	ppbv
	cis-1,2-Dichloroethene/TO150114c	276.044		Not Found	0.000	ppbv
	Ethyl Acetate/TO150114c	277.144		Not Found	0.000	ppbv
	Chloroform/TO150114c	283.144		Not Found	0.000	ppbv
	Cyclohexane/TO150114c	286.244		Not Found	0.000	ppbv
	1,1,1-Trichloroethane/TO150114c	286.744		Not Found	0.000	ppbv
	Carbon Tetrachloride/TO150114c	289.644		Not Found	0.000	ppbv
	Heptane/TO150114c	297.444		Not Found	0.000	ppbv
	1,2-Dichloroethane/TO150114c	297.803		Not Found	0.000	ppbv
	Thiophene/TO150114c	300.406		Not Found	0.000	ppbv
	Trichloroethene/TO150114c	309.544		Not Found	0.000	ppbv
	1,2-Dichloropropane/TO150114c	316.144		Not Found	0.000	ppbv
	1,4-Dioxane/TO150114c	318.944		Not Found	0.000	ppbv
	Bromodichloromethane/TO150114c	321.744		Not Found	0.000	ppbv
	cis-1,3-Dichloropropene/ TO150114c	331.744		Not Found	0.000	ppbv
	4-Methyl-2-pentanone/TO150114c	334.644		Not Found	0.000	ppbv
	Toluene/TO150114c	338.544		Not Found	0.000	ppbv
	trans-1,3-Dichloropropene/ TO150114c	344.844		Not Found	0.000	ppbv
	1,1,2-Trichloroethane/TO150114c	349.744		Not Found	0.000	ppbv

1092

SCOEPAA00032764

Certification Report

Canister Number: F011746; 6L w/8hr+Cane

Can#34335:1

Date: 1/18/2005 Time: 02:11:34

Calibration:

Operator: Administrator

Dilution Factor: 1.0

Page: 2

ATL TOF

CERTIFICATION

Peak #	Name	R.I. (s)	Expected/Analyte R.I. (s)	Type	Conc.	Units
	Tetrachloroethene/TO150114c		351.244	Not Found	0.000	ppbv
	2-Hexanone/TO150114c		354.444	Not Found	0.000	ppbv
	Dibromochloromethane/TO150114c		359.944	Not Found	0.000	ppbv
	1,2-Dibromoethane/TO150114c		364.244	Not Found	0.000	ppbv
	Chlorobenzene/TO150114c		377.144	Not Found	0.000	ppbv
	Ethylbenzene/TO150114c		378.444	Not Found	0.000	ppbv
	m,p-Xylene/TO150114c		382.144	Not Found	0.000	ppbv
	o-Xylene/TO150114c		396.544	Not Found	0.000	ppbv
	Styrene/TO150114c		397.444	Not Found	0.000	ppbv
	Bromoform/TO150114c		406.644	Not Found	0.000	ppbv
	Cumene/TO150114c		409.044	Not Found	0.000	ppbv
	1,1,2,2-Tetrachloroethane/TO150114c		422.144	Not Found	0.000	ppbv
	4-Ethyltoluene/TO150114c		427.344	Not Found	0.000	ppbv
	1,3,5-Trimethylbenzene/TO150114c		429.444	Not Found	0.000	ppbv
	1,2,4-Trimethylbenzene/TO150114c		442.244	Not Found	0.000	ppbv
	1,3-Dichlorobenzene/TO150114c		452.944	Not Found	0.000	ppbv
	1,4-Dichlorobenzene/TO150114c		455.844	Not Found	0.000	ppbv
	alpha-Chlorotoluene/TO150114c		460.344	Not Found	0.000	ppbv
	Indane/TO150114c		462.106	Not Found	0.000	ppbv
	1,2-Dichlorobenzene/TO150114c		467.544	Not Found	0.000	ppbv
	Indene/TO150114c		469.306	Not Found	0.000	ppbv
	1,2,4-Trichlorobenzene/TO150114c		511.344	Not Found	0.000	ppbv
	Hexachlorobutadiene/TO150114c		513.544	Not Found	0.000	ppbv
	Naphthalene/TO150114c		517.806	Not Found	0.000	ppbv
4	Propene	104.241	101.344	Quantified	0.3322	ppbv
6	Freon 114	136.041	134.644	Quantified	0.01550	ppbv
9	Ethanol	219.241	219.344	Quantified	0.07098	ppbv
11	Carbon disulfide	229.841	229.844	Quantified	0.1088	ppbv
12	Acetone	231.141	231.444	Quantified	0.1998	ppbv
13	2-Propanol	236.841	237.144	Quantified	0.03498	ppbv
17	Methylene Chloride	242.641	242.744	Quantified	0.02177	ppbv
20	2-Butanone	277.041	277.644	Quantified	0.04731	ppbv
22	Bromochloromethane-IS	281.941	282.044	Quantified	0.000	ppbv
23	Tetrahydrofuran	282.841	283.744	Quantified	0.02698	ppbv
24	2,3-Dimethylpentane	285.741	285.806	Quantified	0.005522	ppbv
25	2,2,4-Trimethylpentane	293.441	293.744	Quantified	0.005390	ppbv
26	Benzene	295.141	295.344	Quantified	0.04551	ppbv
27	1,2-Dichloroethane-d4	295.541	295.744	Quantified	5.180	ppbv
28	1,4-Dichlorobenzene-IS	303.741	303.944	Quantified	0.000	ppbv

1093

SCOEPAA00032765

Certification Report

Canister Number: F011746; 6L w/8hr+Cane

Can#34335:1

Date: 1/18/2005 Time: 02:11:34

Calibration:

Operator: Administrator

Page: 3

Dilution Factor: 1.0

ATL TOF

CERTIFICATION

Peak #	Name	R.T. (s)	Expected Analyte R.T. (s)	Type	Conc	Units
29	Toluene-D8	336.641	336.944	Quantified	4.949 ✓	ppbv
32	Chlorobenzene-d5-IS	375.641	376.144	Quantified	0.000 ✓	ppbv
34	Bromofluorobenzene	416.541	417.144	Quantified	4.320 ✓	ppbv
35	Propylbenzene	422.941	423.544	Quantified	0.003110	ppbv
1	6-Octadecynenitrile	86.741		Unknown	0.000	ppbv
2	Xenon	87.141		Unknown	0.000	ppbv
3	Xenon	87.941		Unknown	0.000	ppbv
5	Yohimban-17-one	106.341		Unknown	0.000	ppbv
7	Acetaldehyde	171.741		Unknown	0.000	ppbv
8	1,1-Dichloro-1-fluoroethane	215.941		Unknown	0.000	ppbv
10	1-(4-Nitrophenyl)-3,6-diazahomoadamantan-9-ol	226.841		Unknown	0.000	ppbv
14	3-Acetyl-5-(3H-imidazol-4-ylmethyl)-1-phenyl-4,5-dihydro-1H-[1,2,4]triazin-6-one	240.341		Unknown	0.000	ppbv
15	2-Butanamine, 3,3-dimethyl-	240.741		Unknown	0.000	ppbv
16	Acetonitrile	241.341		Unknown	0.000	ppbv
18	2-Propanol, 2-methyl-	247.941		Unknown	0.000	ppbv
19	Silanol, trimethyl-	273.141		Unknown	0.000	ppbv
21	Hexane, 3,3,4,4-tetrafluoro-	280.141		Unknown	0.000	ppbv
30	Silanediol, dimethyl-	338.641		Unknown	0.000	ppbv
31	Cyclotrisiloxane, hexamethyl-	340.941		Unknown	0.000	ppbv
33	Cyclotetrasiloxane, octamethyl-	411.341		Unknown	0.000	ppbv
36	Oxime-, methoxy-phenyl-	423.941		Unknown	0.000	ppbv
37	Phenol	468.041		Unknown	0.000	ppbv
38	Tetrasiloxane, 1,1,3,3,5,5,7,7-octamethyl-	472.241		Unknown	0.000	ppbv
39	17-Hydroxy-3-methoxy-estra-2,5(10)-diene	476.941		Unknown	0.000	ppbv
40	Silane, tetramethyl-	519.841		Unknown	0.000	ppbv
41	Benzocycloheptano[2,3,4-l,j]isoquinolin-1,2,9,10-tetraol, 4,5,6,6a-tetrahydro-,	524.541		Unknown	0.000	ppbv
42	Benzoic acid, 3-methyl-2-trimethylsilyloxy-, trimethylsilyl	561.941		Unknown	0.000	ppbv
43	2-Cyclohexene-1-acetic acid, ß-(methylthio)-3-(trimethylsilyloxy)-, methyl ester	612.741		Unknown	0.000	ppbv

1094

SCOEPAA00032766

DATA REVIEW CHECKLIST

Work Order #:

0502032

A ₁	A ₂	T	Q	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corrective Action issued - #
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unusual circumstances have been documented in the notes section below
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Client sample IDs are correct (checked COC against Login page)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analysis verified against analysis requested on COC
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analysis vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Blank, CCV, LCS/D, Dup. (%RPD) met QC criteria
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Short-list QC criteria met, 50/150% rule met for TO-14 analyses, etc.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hold time is met for all samples
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate data qualifier flags are applied
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations for samples and QC are properly documented
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 hour clock verification (if required by the project)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Checked samples for trends (i.e. Influent>Effluent, etc)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct amount of sample analyzed (i.e. sample not over-diluted)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples pressurized w/ appropriate gas (N ₂ or He)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final pressure consistent with canister size (6L vs. 1L)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (based on sample vol. loaded/final pressure)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Peak area integration correct
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retention times have been verified
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System peaks verified (if applicable)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs resemble reference spectra/are consistently identified between duplicate samples
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TPH/NMOC manual calculations verified
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate ICAL(s) included (Calibration History, Run Log(s), etc)
		<input type="checkbox"/>	<input type="checkbox"/>	BFB/DFTPP Tune, CCV, LCS, SS, and sample result calculation checked
		<input type="checkbox"/>	<input type="checkbox"/>	Manually calculated/manually entered results checked
		<input type="checkbox"/>	<input type="checkbox"/>	The final report has the correct reporting list, units, and header info.
		<input type="checkbox"/>	<input type="checkbox"/>	Special units for all samples in the final report are correctly calculated
		<input type="checkbox"/>	<input type="checkbox"/>	CVP package/Client Specific Deliverable is complete and correct

Notes: (to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)

A₁/A₂: 1 CCV out in 2/10/05
 several out high in 3 LCSs
 Report down to MDL

T/Q:

A ₁	A ₂	T	Q
(Analytical Review/Date)	(Analytical Review/Date)	(Technical Review/Date)	(QA Review/Date)
NE 2/9/05	mr 2-11-05		1095

Note: Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.

Revision Date: 02/05/03

Not Applicable

**NW NATURAL
SUPPLEMENTAL AMBIENT
INDOOR AIR EVALUATION REPORT**

Siltronic Corporation Facility
7200 NW Front Avenue
Portland, Oregon

December 8, 2005

Project No. 5237

HAI/ HAHN AND ASSOCIATES, INC.
434 NW 6TH AVENUE, SUITE 203
PORTLAND, OREGON 97209-3651
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ENVIRONMENTAL CONSULTANTS
ASSESSMENT
INVESTIGATION
REMEDATION

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

December 9, 2005

Mr. Matt McClincy
Oregon Department of Environmental Quality
Northwest Region, Portland Office
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201-4987

HAI Project No. 5237

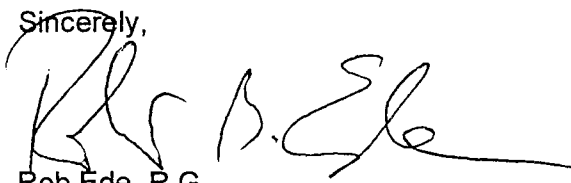
**SUBJECT: Supplemental Ambient Indoor Air Evaluation Report
NW Natural – Siltronic Corporation Facility
7200 NW Front Avenue, Portland, Oregon**

Dear Mr. McClincy:

On behalf of NW Natural, Hahn and Associates, Inc. (HAI) is submitting three (3) copies of the *Supplemental Ambient Indoor Air Evaluation Report* for the air sampling work that was conducted on July 21, 2005 at the Siltronic Corporation facility located at 7200 NW Front Avenue, Portland, Oregon.

Please call the undersigned if you have any questions.

Sincerely,



Rob Ede, R.G.
Sr. Associate

Attachments

cc: Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Schwabe, Williamson & Wyatt
Mr. Tom McCue, Siltronic Corporation
Mr. Carl Stivers, Anchor Environmental, LLC

**NW Natural
SUPPLEMENTAL AMBIENT
INDOOR AIR EVALUATION REPORT**

Siltronic Corporation Facility
7200 NW Front Avenue
Portland, Oregon

December 8, 2005

Prepared for:

NW Natural
Portland, Oregon

Prepared by:

Hahn and Associates, Inc.
Portland, Oregon

HAI Project No. 5237

1500 NE Irving Street
Suite 440
Portland, OR 97232
971.244.1200
Fax 971.244.1209



December 7, 2005

Mr. Rob Ede, R.G.
Senior Associate
HAHN AND ASSOCIATES, INC.
434 NW 6th Avenue
Suite 203
Portland, Oregon 97209

Clayton Project No. 65-06004.00

Subject: Ambient Indoor Air Evaluation at the Siltronic Corporation Facility

Dear Mr. Ede:

Clayton Group Services, Inc., a Bureau Veritas Company, is pleased to present our report for the ambient indoor air evaluation that was performed for Hahn and Associates, Inc. at the Siltronic Corporation facility located at 7200 NW Front Avenue, Portland, Oregon. The volatile organic compounds sampling was conducted on July 21, 2005, at three interior locations and four exterior locations around the Siltronic Site. This report contains our findings related to the assessment.

We appreciate the opportunity to provide this service for you. Please call me at 971.244.1200 with any questions or comments about this report.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Scott B. Turkle', is written over a light blue horizontal line.

Scott B. Turkle, CIH
Senior Consultant
Occupational Health and Safety

ST/st

Ambient Indoor Air Evaluation

Prepared for:

Hahn & Associates, Inc.

Portland, Oregon

Siltronic Corporation
7200 NW Front Avenue
Portland, Oregon

Clayton Project Number 65-06004.00
December 7, 2005

Clayton Group Services, Inc.
1500 NE Irving Street
Suite 440
Portland, Oregon 97232
971.244.1200

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- Laboratory Data Sheets

1.0 INTRODUCTION

Hahn and Associates, Inc. (Hahn) authorized Clayton Group Services, Inc. (Clayton), a Bureau Veritas Company, to conduct supplemental ambient indoor and outdoor air evaluations in and around the current Siltronic Corporation site located at 7200 NW Front Avenue, Portland, Oregon. The air sampling project was conducted for NW Natural at the request of the Oregon Department of Environmental Quality (DEQ). This sampling was conducted as follow up to earlier monitoring conducted on January 25, 2005. Air sampling was conducted for volatile organic compounds (VOC) including trichloroethene (TCE), its breakdown products, BTEX (benzene, toluene, ethyl benzene and xylene) and naphthalene. Summa canisters were used for typical full shift or 8-Hour Time Weighted Average exposure assessments. The samples were analyzed utilizing EPA Modified Method TO-15 gas chromatography with mass spectrometry. The analysis was conducted for the entire TO-15 list of chemicals plus naphthalene. Site access was coordinated with Siltronic staff.

The scope of Clayton's services was described in the proposal letter PR-65OH05-195R Revised to Hahn.

In conducting this assessment, the following tasks were performed:

- Reviewed reports of remedial assessments performed at the Siltronic site and the NW Natural former manufactured gas plant site.
- Utilized the DEQ approved Work Plan Addendum (dated June 17, 2005), for sample locations, analysis and reporting procedures.
- Conducted area monitoring for VOC and naphthalene at three interior locations within two different buildings and four exterior locations around the site.
- Measured the site conditions at each of the locations including the weather at the exterior locations.

Mr. Scott Turkle, Certified Industrial Hygienist, with Clayton Group Services, Inc. conducted the assessment on July 21, 2005. Mr. Mark Whitson with Hahn provided coordination and assistance. Mr. Tom McCue and Mr. Myron Burr with Siltronic Corporation also provided site access, coordination and assistance.

2.0 BACKGROUND

The Siltronic Corporation operates a silicon wafer fabricating production facility on river front property adjacent to the Willamette River. Railroad tracks are present on two other sides of the property. A manufactured gas plant oil gasification facility used to operate on property to the west of the facility. Petroleum pipelines currently traverse under portions of the site. The silicon wafer facility uses typical chemicals for this type of industry including isopropyl alcohol for surface cleaning.

3.0 METHODOLOGY

3.1 SAMPLE MONITORING

Summa canisters were set up in pre-approved sample locations at interior building locations and ground level site locations. Stainless steel evacuated (partial vacuum or negative pressure) 6-liter Summa canisters utilize a calibrated precision critical orifice device to slowly collect representative air samples. The Summa canisters were ordered from and analyzed by Air Toxics, Limited. Air Toxics, Limited is an accredited laboratory located in Folsom, California. All Summa canisters were 100% certified and calibrated with matched canister, matched mass flow controller and matched stainless steel sampling cane. They were set for an 8-hour (full work shift) integrated sampling period. The sampling canes were custom ordered to 4.5 foot above the floor or ground to simulate a breathing zone level. The use of matched canes allowed the Summa canisters to be consistent in height while not having to be on table tops, desk tops or other surfaces where they could be knocked off or interfere with building occupants. The top of each cane was designed with an inverted curve downward to reduce the potential for rain, dust or other debris from being improperly entrained into the sample stream.

Summa canisters were placed in the specified locations, according to the DEQ approved locations, directly on the floor or ground in areas not likely to be bumped or disturbed by facility staff. Initial Summa canister vacuum pressure was recorded and monitored until the end of the sample period or pressure equilibrium. In areas with potential impacts or outside wind, the Summa canisters were secured in place with coated wire. Employees working adjacent to the sample locations were informed of the activity. Site approved identification signs were attached to inform all employees. Routine inspection of the Summa canisters was conducted throughout the sample period. All Summa canisters had sufficient vacuum pressure to complete the planned 8-hour sample period. At the end of the 8-hour sample period, the final cylinder vacuum pressure was recorded and the valves were closed. Chain of custody forms were completed and all samples were maintained under direct supervision or locked until shipped via overnight air to the laboratory.

3.2 WEATHER MONITORING

As requested by DEQ, sampling was scheduled during a low-pressure front passing through the region.

Exterior Summa canister locations were subject to prevailing weather conditions. A Brunton Summit Atmospheric Data Center[®] meter was used for wind speed, wind direction, temperature and barometric pressure. The weather conditions for the exterior samples are reported in Table 2.

3.3 LABORATORY ANALYTICAL METHOD

Chain of custody procedures was maintained for the samples. No samples were invalidated. The samples were analyzed utilizing EPA Modified Method TO-15 plus naphthalene gas chromatography with mass spectrometry. Laboratory Quality Control

and Quality Assurance standards were conducted and documented. The data was validated and J-Flagged.

4.0 GUIDELINES AND STANDARDS

The following standards and guidelines were utilized for this assessment:

- Oregon Department of Environmental Quality (DEQ) Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites, September 2003, Appendix A: Table of RBCs (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational) and Table J.4: Generic RBCs for Chlorinated Solvents (Contaminated Medium of Air, Exposure Pathway via Inhalation with the Receptor Scenario as Occupational)
- Oregon Department of Consumer & Business Services, Oregon Occupational Safety & Health Division (OR-OSHA), 8-Hour TWA Permissible Exposure Limits (PELs)
- US Environmental Protection Agency (EPA) Building Assessment and Survey Evaluation (BASE) database of indoor environmental conditions in buildings
- US National Institute for Occupational Safety and Health (NIOSH), Recommended Exposure Limits (RELs), January 2003
- American Conference of Governmental Industrial Hygienists (ACGIH), 2005 Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs) booklet.

5.0 AREA MONITORING RESULTS

The area VOC monitoring results are summarized in Table 1 with full laboratory results included in the Appendix. Sample Conditions are summarized in Table 2. Many of the samples did not have detectable airborne concentrations for most of the individual chemicals analyzed by the EPA TO-15 Method.

None of the samples detected levels at or near the Oregon Occupational Safety & Health Division Permissible Exposure Limits. None of the samples detected levels at or near the NIOSH RELs or ACGIH TLV recommended levels.

Benzene was detected above the DEQ RBC level of 1.5 micrograms per cubic meter (ug/m^3) of air at only one sample station (Sample Station #12 at $2.1 \text{ ug}/\text{m}^3$, which is an outdoor air sample station). The range of benzene concentrations in all samples was between 0.78 and $2.1 \text{ ug}/\text{m}^3$. No pattern could be determined between interior and exterior samples or site location.

Trichloroethene was not detected in any of the samples.

Naphthalene was not detected above the DEQ RBC of $13 \text{ ug}/\text{m}^3$. The naphthalene concentration in the air sample collected at Sample Station #12 was $7.9 \text{ ug}/\text{m}^3$. The range of detected naphthalene concentrations was between 3.2 and $7.9 \text{ ug}/\text{m}^3$.

6.0 OBSERVATIONS AND DISCUSSION

Facility operations proceeded typically throughout the sampling period. All building ventilation systems were operating as usual as reported by the available site staff. Sampling staff followed all procedures for building or specific room entry as requested by the site staff.

Air samples were taken in two non-production based buildings including the Central Facilities Building and the Fab 1 Waste Water Treatment Control Area. Production requirements do not require positive pressure ventilation in these areas. General ventilation systems were present in each room. The Central Facilities Compressor Room had large exhaust ventilation fans operating and the room was under neutral pressure. The Central Facilities Chiller room and Fab 1 Waste Water Treatment Control Area were also neutral pressure to the outside.

Limited vehicle use is allowed within the fenced-in facility campus with full employee access and parking allowed within the fenced-in site. The site has active railroad use adjacent to the west and south fences with US Highway 30 further west just beyond the tracks. The Willamette River on the north side is busy with commercial and private boats. Benzene is commonly present in motor vehicle fuels (boats, trains, cars and trucks) and commonly found in urban and port areas. The air samples reported by DEQ in an air survey at the Portland Forest Heights Post Office and Portland North Roselawn detected levels ranging from <0.3 to 7.7 ug/m^3 .

Typical creosote or pitch odors believed to be from the adjacent railroad track ties or adjacent property, were noted during sample setup and periodic sample inspection at the outside air sample #12 (near the western property boundary, next to fence line, near railroad tracks) and air sample #15 (northwest property boundary and next to fence line).

The weather was hot with clear sunny skies, calm winds and a moderately low-pressure weather system. Calm winds could reduce the mixing or dilution effect from any potential chemical source. Less wind also tends to keep potential air pollution within the river valley.

OR-OSHA has authority for this site and their regulations meet or exceed the US Federal OSHA regulations. OR-OSHA, 8-Hour TWA PELs are included since the employees are potentially being exposed to these chemicals in the workplace. PELs are set to protect typical workers in an occupational exposure location. The NIOSH and ACGIH 8-Hour TWA recommendations are not regulations but are provided as general industry standards for employee exposures.

The components and the break down by-products of petroleum products are commonly called BTEX for benzene, toluene, ethyl benzene and xylenes. Air sample concentrations consistent with typical urban locations were detected and consistent with the DEQ reported air survey at the Portland Forest Heights Post Office and Portland North Roselawn. Trichloroethene and its breakdown by-products, including 1, 1-dichloroethene, vinyl chloride, trans-1, 2-dichloroethene and cis-1, 2-dichloroethene, were non-detected.

The US EPA Building Assessment and Survey Evaluation (BASE) reports that certain typical chemicals including BTEX are commonly found in buildings. Reported typical levels include: benzene at 1.7 to 61 ug/m^3 , toluene at 3.8 to 390 ug/m^3 , m- and p-xylene

at 4.0 to 69 ug/m³, o-xylene at 1.1 to 15 ug/m³, acetone at 12 to 240 ug/m³, ethanol at 1.5 to 300 ug/m³ and iso-propanol at 3.7 to 570 ug/m³. The DEQ reported air survey at the Portland Forest Heights Post Office and Portland North Roselawn are within similar levels to those reported in the US EPA BASE report and the results of this study.

7.0 CONCLUSIONS

Clayton's conclusions are based on its observations, including results from the Summa canister monitoring. Per the scope of work in the surveyed areas, no occupational safety and health conditions were discovered that appear to violate any of the OR-OSHA or Federal OSHA regulations for 8-Hour Time Weighted Average Permissible Exposure Levels.

Benzene was the only chemical to exceed the DEQ Risk Based Concentrations (RBC) for inhalation-based exposures in air in an occupational scenario. The RBC for benzene is 1.5 ug/m³. However, benzene concentrations were still within the range typical for urban air.

Report prepared by:



Scott B. Turkle, CIH
Senior Consultant
Occupational Health and Safety

Report reviewed by:



Venetia Runnion, CIH, CSP
Director
Occupational Health and Safety

December 7, 2005

TABLES

Table 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	Freon 12		Freon 114		Chloromethane		Vinyl Chloride		Bromomethane		Chloroethane		Freon 11		1,1-Dichloroethene		Freon 113		1,1-Dichloroethane	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	0.50	2.4	ND	ND	0.50	1.0	ND	ND	ND	ND	ND	ND	0.46	2.6	ND	ND	ND	ND	ND	ND
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	0.50	2.5	ND	ND	0.47	0.98	ND	ND	ND	ND	ND	ND	0.27	1.5	ND	ND	ND	ND	ND	ND
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	0.48	2.4	ND	ND	0.51	1.0	ND	ND	0.088 J	0.34 J	ND	ND	0.26	1.5	ND	ND	ND	ND	ND	ND
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	0.50	2.5	ND	ND	0.46	0.96	ND	ND	ND	ND	ND	ND	0.27	1.5	ND	ND	ND	ND	ND	ND
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	0.48	2.5	ND	ND	0.44	0.90	ND	ND	0.097 J	0.38 J	ND	ND	0.26	1.5	ND	ND	ND	ND	ND	ND
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	0.49	2.4	ND	ND	0.52	1.1	ND	ND	ND	ND	ND	ND	0.26	1.4	ND	ND	ND	ND	ND	ND
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	0.51	2.5	ND	ND	0.59	1.2	ND	ND	ND	ND	ND	ND	0.29	1.6	ND	ND	ND	ND	ND	ND
US EPA BASE	--	--	--	--	--	1.3 - 22	--	7.5	--	1.1 - 4.6	--	1.4 - 57	--	1.7 - 170	--	--	--	--	--	--
OR-OSHA 8-Hour TWA-PEL	1.0x10 ⁶	4.95x10 ⁶	1.0x10 ⁶	7.0x10 ⁶	1.0x10 ⁵	2.05x10 ⁵	1000	--	--	--	1.0x10 ⁶	2.6x10 ⁶	1.0x10 ⁶	5.6x10 ⁶	--	--	1.0x10 ⁶	7.6x10 ⁶	1.0x10 ⁵	4.0x10 ⁵
NIOSH 8-Hour TWA-REL	1.0x10 ⁶	4.95x10 ⁶	1.0x10 ⁶	7.0x10 ⁶	--	--	--	--	--	--	--	--	--	--	--	--	1.0x10 ⁶	7.6x10 ⁶	1.0x10 ⁵	4.0x10 ⁵
ACGIH 8-Hour TWA-TLV	1.0x10 ⁶	--	1.0x10 ⁶	--	5.0x10 ⁴	--	1000	--	1000	--	1.0x10 ⁵	--	--	--	5000	--	1.0x10 ⁶	--	1.0x10 ⁵	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	2.6	--	--	--	--	--	--	--	830	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	< 0.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	< 0.1	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
ppbv: parts per billion-volume
ug/m³: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Survey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Administration
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Oregon Department of Environmental Quality
RBDM: Risk-Based Decision Making
ND: Not Detected
J: Estimated value
*: 10-hour TWA

Table 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	cis-1,2-Dichloroethene		Chloroform		1,1,1-Trichloroethane		Carbon Tetrachloride		Benzene		1,2-Dichloroethane		Trichloroethene		1,2-Dichloropropane		cis-1,3-Dichloropropene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	ND	ND	0.058 J	0.29 J	ND	ND	0.077 J	0.48 J	0.36	1.1	ND	ND	ND	ND	ND	ND	ND	ND
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	ND	ND	0.077 J	0.38 J	ND	ND	0.087 J	0.54 J	0.31	0.98	ND	ND	ND	ND	ND	ND	ND	ND
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	ND	ND	0.036 J	0.18 J	ND	ND	0.083 J	0.52 J	0.38	1.2	ND	ND	ND	ND	ND	ND	ND	ND
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	ND	ND	ND	ND	ND	ND	0.083 J	0.52 J	0.66	2.1	ND	ND	ND	ND	ND	ND	ND	ND
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	ND	ND	ND	ND	ND	ND	0.079 J	0.50 J	0.24	0.78	ND	ND	ND	ND	ND	ND	ND	ND
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	ND	ND	ND	ND	ND	ND	0.083 J	0.52 J	0.25	0.79	ND	ND	ND	ND	ND	ND	ND	ND
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	ND	ND	ND	ND	ND	ND	0.072 J	0.45 J	0.31	0.99	ND	ND	ND	ND	ND	ND	ND	ND
US EPA BASE	--	--	--	0.6 - 8.6	--	1.3 - 52		0.9 - 2.1	--	1.7 - 61	--	1.0 - 85	--	0.9 - 90	--	--	--	--
OR-OSHA 8-Hour TWA-PEL	--	--	--	--	3.5x10 ⁵	1.9x10 ⁶	1.0x10 ⁴	--	1000	--	5.0x10 ⁴	--	1.0x10 ⁵	--	7.5x10 ⁴	3.5x10 ⁵	--	--
NIOSH 8-Hour TWA-REL	--	--	--	--	--	--	--	--	100	320	1000	4000	2.5x10 ⁴ *	--	--	--	--	--
ACGIH 8-Hour TWA-TLV	2.0x10 ⁵	--	1.0x10 ⁴	--	3.5x10 ⁵	--	5000	--	500	--	1.0x10 ⁴	--	5.0x10 ⁴	--	7.5x10 ⁴	--	--	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	150	--	--	--	9200	--	--	--	1.5	--	--	--	0.10	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	< 0.10	--	--	--	--	--	--	--	< 0.1 - 1.6	< 0.3 - 5.1	--	--	< 0.1 - 0.12	--	--	--	--	--
Portland North Roselawn (1999-2003)	< 0.10	--	--	--	--	--	--	--	< 0.1 - 2.4	< 0.3 - 7.7	--	--	< 0.1 - 0.12	--	--	--	--	--

Notes:
ppbv: parts per billion-volume
ug/m³: micrograms per cubic meter
US EPA: United States Environmental Protection Agency
BASE: Building Assessment and Survey Evaluation
OR-OSHA: Oregon Occupational Safety & Health Administration
NIOSH: National Institute for Occupational Safety & Health
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
TLV: Threshold Limit Value
DEQ: Oregon Department of Environmental Quality
RBDM: Risk-Based Decision Making
ND: Not Detected
J: Estimated value
*: 10-hour TWA

Table 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	Toluene		trans-1,3-Dichloropropene		1,1,2-Trichloroethane		Tetrachloroethene		1,2-Dibromoethane (EDB)		Chlorobenzene		Ethyl Benzene		m,p-Xylene		o-Xylene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	1.1	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	0.74	0.64	2.8	0.21	0.90
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	0.56	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10 J	0.44 J	0.34	1.5	0.11 J	0.49 J
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	0.67	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13 J	0.56 J	0.37	1.6	0.12 J	0.52 J
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	1.5	5.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	0.65 J	0.42	1.8	0.092 J	0.40 J
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	0.36	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.067 J	0.29 J	0.20	0.88	ND	ND
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	0.50	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10 J	0.45 J	0.26	1.1	0.074 J	0.32 J
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	0.64	2.4	ND	ND	ND	ND	0.064 J	0.44 J	ND	ND	ND	ND	0.14 J	0.59 J	0.43	1.9	0.15 J	0.64 J
US EPA BASE	--	3.8 - 390	--	--	--	--	--	0.7 - 56	--	1.5	--	1.1 - 1.4	--	1.2 - 20	--	4.0 - 69	--	1.1 - 15
OR-OSHA 8-Hour TWA-PEL	2.0x10 ⁵	--	--	--	1.0x10 ⁴	4.5x10 ⁴	1.0x10 ⁵	--	2.0x10 ⁴	--	7.5x10 ⁴	3.5x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵
NIOSH 8-Hour TWA-REL	1.0x10 ⁵	3.75x10 ⁵	--	--	1.0x10 ⁴	4.5x10 ⁴	--	--	45	--	--	--	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵	1.0x10 ⁵	4.35x10 ⁵
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	--	--	1.0x10 ⁴	--	2.5x10 ⁴	--	--	--	1.0x10 ⁴	--	1.0x10 ⁵	--	1.0x10 ⁵	--	1.0x10 ⁵	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	1600	--	--	--	--	--	1.9	--	0.053	--	--	--	4,200	--	420	--	420
Portland Forest Heights Post Office (1999-2003)	< 0.1 - 7.7	--	--	--	--	--	--	--	--	--	--	--	< 0.1 - 1.6	--	< 0.1 - 6.5	--	< 0.1 - 2.0	--
Portland North Roselawn (1999-2003)	< 0.1 - 7.6	--	--	--	--	--	--	--	--	--	--	--	< 0.1 - 1.8	--	< 0.1 - 7.7	--	< 0.1 - 2.9	--

Notes:
ppbv: parts per billion-volume
ug/m³: micrograms per cubic meter
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ND: Not Detected
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Table 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	Styrene		1,1,2,2-Tetrachloroethane		1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,3-Dichlorobenzene		1,4-Dichlorobenzene		alpha-Chlorotoluene		1,2-Dichlorobenzene		Methylene Chloride	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	ND	ND	ND	ND	0.052 J	0.26 J	0.16 J	0.81 J	ND	ND	0.048 J	0.29 J	ND	ND	ND	ND	0.16 J	0.55 J
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	ND	ND	ND	ND	ND	ND	0.081 J	0.40 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.64 J
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	ND	ND	ND	ND	ND	ND	0.097 J	0.48 J	ND	ND	ND	ND	ND	ND	ND	ND	0.23 J	0.80 J
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	ND	ND	ND	ND	ND	ND	0.16 J	0.79 J	ND	ND	ND	ND	ND	ND	ND	ND	0.29 J	1.0 J
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.61 J
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	ND	ND	ND	ND	ND	ND	0.054 J	0.27 J	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	0.51 J
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	ND	ND	ND	ND	ND	ND	0.14 J	0.67 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.62 J
US EPA BASE	--	0.6 - 40	--	--	--	1.2 - 11	--	1.2 - 93	--	--	--	1.2 - 46	--	--	--	1.7	--	1.7 - 29
OR-OSHA 8-Hour TWA-PEL	1.0x10 ⁵	--	5000	3.5x10 ⁴	--	--	--	--	--	--	7.5x10 ⁴	4.5x10 ⁵	1000	5000	--	--	2.5x10 ⁴	--
NIOSH 8-Hour TWA-REL	5.0x10 ⁴	2.15x10 ⁵	1000	7000	2.5x10 ⁴	1.25x10 ⁵	2.5x10 ⁴	1.25x10 ⁵	--	--	--	--	--	--	--	--	--	--
ACGIH 8-Hour TWA-TLV	2.0x10 ⁴	--	1000	--	--	--	--	--	--	--	1.0x10 ⁴	--	1000	--	2.5x10 ⁴	--	5.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	25	--	25	--	--	--	--	--	--	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	< 0.1 - 4.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	< 0.1 - 1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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ND: Not Detected
J: Estimated value
*: 10-hour TWA

Table 1
Analytical Results
for the
Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	1,2,4-Trichlorobenzene		Hexachlorobutadiene		1,3-Butadiene		Acetone		Carbon Disulfide		2-Propanol		trans-1,2-Dichloroethene		2-Butanone (Methyl Ethyl Ketone)		Hexane	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	ND	ND	ND	ND	ND	ND	4.7	11	0.31 J	0.98 J	1.5	3.6	ND	ND	4.2	12	0.32 J	1.1 J
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	ND	ND	ND	ND	ND	ND	4.2	10	0.14 J	0.45 J	1.3	3.1	ND	ND	0.49 J	1.4 J	0.23 J	0.82 J
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	ND	ND	ND	ND	ND	ND	4.6	11	0.20 J	0.61 J	0.46 J	1.1 J	ND	ND	0.47 J	1.4 J	0.31 J	1.1 J
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	ND	ND	ND	ND	ND	ND	7.3	17	0.61 J	1.9 J	1.0	2.5	ND	ND	0.58 J	1.7 J	0.76 J	2.7 J
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	ND	ND	ND	ND	ND	ND	3.8	9.0	0.12 J	0.37 J	0.51 J	1.2 J	ND	ND	0.41 J	1.2 J	0.19 J	0.68 J
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	ND	ND	ND	ND	ND	ND	5.4	13	1.2	3.7	1.2	3.0	ND	ND	1.2	3.4	0.19 J	0.67 J
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	ND	ND	ND	ND	ND	ND	4.1	9.8	0.11 J	0.34 J	0.48 J	1.2 J	ND	ND	0.44 J	1.3 J	0.31 J	1.1 J
US EPA BASE	--	--	--	--	--	--	--	12 - 240	--	0.8 - 15	--	3.7 - 570	--	--	--	1.4 - 28	--	1.6 - 130
OR-OSHA 8-Hour TWA-PEL	--	--	--	--	1000	2210	1.0x10 ⁶	2.4x10 ⁶	2.0x10 ⁴	--	4.0x10 ⁵	9.8x10 ⁵	--	--	2.0x10 ⁵	5.9x10 ⁵	5.0x10 ⁵	1.8x10 ⁶
NIOSH 8-Hour TWA-REL	--	--	20	240	--	--	2.5x10 ⁵	5.9x10 ⁵	--	--	4.0x10 ⁵	9.8x10 ⁵	--	--	2.0x10 ⁵	5.9x10 ⁵	5.0x10 ⁴	1.8x10 ⁵
ACGIH 8-Hour TWA-TLV	--	--	20	--	2000	--	5.0x10 ⁵	--	1.0x10 ⁴	--	2.0x10 ⁵	--	--	--	2.0x10 ⁵	--	5.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	--	--	--	--	--	--	290	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
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Table 1
Analytical Results
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Siltronics Corporation Facility in Portland, Oregon
Clayton Project No.: 65-06004.00
July 21, 2005

Sample Location	Tetrahydrofuran		Cyclohexane		1,4-Dioxane		Bromodichloro methane		4-Methyl-2-pentanone		2-Hexanone		Dibromochloro methane		Bromoform		4-Ethyltoluene		Ethanol	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	3.4	9.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.88 J	2.7	5.2
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	0.16 J	0.46 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.091 J	0.45 J	2.2	4.2
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	0.17 J	0.50 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.53 J	2.1	4.0
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	ND	ND	0.32 J	1.1 J	ND	ND	ND	ND	0.062 J	0.25 J	ND	ND	ND	ND	ND	ND	0.13 J	0.65 J	3.9	7.4
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.042 J	0.20 J	2.6	4.8
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.056 J	0.28 J	2.3	4.4
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	0.10 J	0.30 J	0.14 J	0.48 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.70 J	2.2	4.1
US EPA BASE	--	--	--	--	--	--	--	--	--	1.6 - 73	--	--	--	--	--	--	--	1.2 - 11	--	1.5 - 300
OR-OSHA 8-Hour TWA-PEL	2.0x10 ⁵	5.9x10 ⁵	3.0x10 ⁵	1.05x10 ⁶	1.0x10 ⁵	3.6x10 ⁵	--	--	1.0x10 ⁵	4.1x10 ⁵	1.0x10 ⁵	4.1x10 ⁵	--	--	500	5000	--	--	1.0x10 ⁶	1.9x10 ⁶
NIOSH 8-Hour TWA-REL	2.0x10 ⁵	5.9x10 ⁵	3.0x10 ⁵	1.05x10 ⁶	--	--	--	--	5.0x10 ⁴	2.05x10 ⁵	5.0x10 ⁴	2.05x10 ⁵	--	--	500	5000	--	--	1.0x10 ⁶	1.9x10 ⁶
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	1.0x10 ⁵	--	2.0x10 ⁴	--	--	--	5.0x10 ⁴	--	5000	--	--	--	500	--	--	--	1.0x10 ⁶	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	3.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
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ND: Not Detected
J: Estimated value
*: 10-hour TWA

Table 1

Analytical Results

for the

Siltronics Corporation Facility in Portland, Oregon

Clayton Project No.: 65-06004.00

July 21, 2005

Sample Location	Methyl tert-butyl ether		Heptane		Cumene		Propylbenzene		Naphthalene	
	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³	ppbv	ug/m ³
Station 9: In Central Facilities Building, ground floor, northwest chiller room, between Chiller #10 & #16	ND	ND	0.24 J	0.98 J	ND	ND	0.098 J	0.48 J	ND	ND
Station 10: In Central Facilities Building, ground floor, southwest air compressor room	ND	ND	0.18 J	0.75 J	ND	ND	ND	ND	ND	ND
Station 11: In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat	ND	ND	0.15 J	0.60 J	ND	ND	ND	ND	0.61 J	3.2 J
Station 12: Outdoors, at grade, Control/Background. Near the western property boundary, next to fence	ND	ND	0.18 J	0.74 J	ND	ND	0.094 J	0.46 J	1.5	7.9
Station 13: Outdoors, at grade, Control/Background. Southern property boundary, next to fence	ND	ND	0.084 J	0.34 J	ND	ND	ND	ND	ND	ND
Station 14: Outdoors, at grade, Control/Background. In landscaping between Guard Shack and Administration Building	ND	ND	0.12 J	0.48 J	ND	ND	ND	ND	ND	ND
Station 15: Outdoors, at grade, Control/Background. Northwest property boundary, next to fence, northwest of Central Utility Building	ND	ND	0.24 J	0.96 J	ND	ND	ND	ND	ND	ND
US EPA BASE	--	2.6 - 19	--	2.1 - 36	--	--	--	--	--	2.2 - 410
OR-OSHA 8-Hour TWA-PEL	--	--	5.0x10 ⁵	2.0x10 ⁶	5.0x10 ⁴	2.45x10 ⁵	--	--	1.0x10 ⁴	5.0x10 ⁴
NIOSH 8-Hour TWA-REL	--	--	8.5x10 ⁴	3.5x10 ⁵	5.0x10 ⁴	2.45x10 ⁵	--	--	1.0x10 ⁴	5.0x10 ⁴
ACGIH 8-Hour TWA-TLV	5.0x10 ⁴	--	4.0x10 ⁵	--	5.0x10 ⁴	--	--	--	1.0x10 ⁴	--
DEQ RBDM, Remediation of Petroleum-Contaminated Sites	--	--	--	--	--	--	--	580	--	13
Portland Forest Heights Post Office (1999-2003)	--	--	--	--	--	--	--	--	--	< 0.0003 - 0.0086
Portland North Roselawn (1999-2003)	--	--	--	--	--	--	--	--	--	< 0.0003 - 0.0125

Notes:

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J: Estimated value

*: 10-hour TWA

Table 2
Sample Conditions at
Siltronic Corporation Site
Clayton Project No. 65-06004.00
July 21, 2005

Station	Location	Time On (AM)	Summa Vacuum (" Hg)	Time Off (PM)	Summa Vacuum (" Hg)	Ambient Conditions
9	In Central Facilities Building, ground floor, northwest chiller room, between Chiller # 10 & #16.	9:02	27.5	5:02	4.3	At 11:20 am, 82.5 °F, 29.85 " Hg. Neutral pressure to outside, but doors open to outdoors & other mechanical rooms.
10	In Central Facilities Building, ground floor, southwest air compressor room.	8:52	30.0	4:52	7.2	At 11:17 am, 83.3 °F, 29.86 " Hg. Neutral pressure to outside, but doors open to outdoors & other mechanical rooms.
11	In Fab 1 Wastewater Treatment Plant Building Control Room, near thermostat.	8:31	28.5	4:31	6.8	At 11:27 am, 76.6 °F, 29.85 " Hg. Neutral pressure to outside.
12	Outdoors, at grade, Control / Background. Near the western property boundary, next to fence.	8:22	30.0	4:22	6.8	At 11:49 am, 89.4 °F, 29.85 " Hg. Wind from the northwest, calm to 6.8 mph.
13	Outdoors, at grade, Control / Background. Southern property boundary, next to fence	8:11	27.8	4:11	5.8	At 11:57 am, 91.7 °F, 29.84 " Hg. Wind from the northwest, calm to 5.9 mph.
14	Outdoors, at grade, Control / Background. In landscaping between Guard Shack and Administration Building.	7:44	30.0	5:12	7.3	At 11:08 am, 84.3 °F, 29.86 " Hg. Wind from the northwest, calm to 4.5 mph.
15	Outdoors, at grade, Control / Background. Northwest property boundary, next to fence, northwest of Central Utility Building.	9:12	30.0	5:12	8.5	At 11:40 am, 84.7 °F, 29.85 " Hg. Wind from the northwest, calm to 5.9 mph.

Notes:

" Hg: inches of mercury pressure
 °F: degrees Fahrenheit
 mph: miles per hour, wind speed

APPENDIX

LABORATORY DATA SHEETS



Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific

**AIR TOXICS LTD.**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0507551

Work Order Summary

CLIENT:	Mr. Scott Turkle Clayton Group Services 1500 NE Irving Street Suite 440 Portland, OR 97232	BILL TO:	Mr. Scott Turkle Clayton Group Services 1500 NE Irving Street Suite 440 Portland, OR 97232
PHONE:	971-244-1205	P.O. #	
FAX:	971-244-1209	PROJECT #	65-06004.00 Hahn- Siltronic
DATE RECEIVED:	07/25/2005	CONTACT:	Nicole Salengo
DATE COMPLETED:	08/05/2005		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	#9928, Station 9, CFB chiller	Modified TO-15	6.5"hg
02A	#9945, Station 10, CFB Air Compressors	Modified TO-15	6.5"hg
03A	#11884, Station 11, WWTP Control Room	Modified TO-15	6.5"hg
04A	#13842, Station 12, Outdoors Western	Modified TO-15	7"hg
04AA	#13842, Station 12, Outdoors Western Duplicat	Modified TO-15	7"hg
05A	#20945, Station 13, Outdoors Southern	Modified TO-15	6.5"hg
06A	#23989, Station 14, Outdoors by Guard Shack	Modified TO-15	7.5"hg
07A	#94306, Station 15, Outdoors Northwest	Modified TO-15	9.5"hg
08A	Lab Blank	Modified TO-15	NA
09A	CCV	Modified TO-15	NA
10A	LCS	Modified TO-15	NA

CERTIFIED BY:

Laboratory Director

DATE: 08/08/05

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15
Clayton Group Services
Workorder# 0507551

Seven 6 Liter Summa Special (100% Certified) samples were received on July 25, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Blank and standards	Zero air	Nitrogen
Dilutions for initial calibration	Dynamic dilutions or static using canisters.	Syringe dilutions may also be utilized.
BFB acceptance criteria	CLP protocol	SW-846 protocol
Daily Calibration	+/- 30% Difference	<= 30% Difference with four allowed out up to <=40%.; flag and narrate outliers
ICAL %RSD acceptance criteria	+/- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

The Chain of Custody (COC) information for samples #9928, Station 9, CFB chiller, #9945, Station 10, CFB Air Compressors, #11884, Station 11, WWTP Control Room, #13842, Station 12, Outdoors Western, #20945, Station 13, Outdoors Southern, #23989, Station 14, Outdoors by Guard Shack and #94306, Station 15, Outdoors Northwest did not match the entries on the sample tags with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the samples.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: #9928, Station 9, CFB chiller

Lab ID#: 0507551-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.4
Chloromethane	0.17	0.50	0.35	1.0
Freon 11	0.17	0.46	0.96	2.6
Chloroform	0.17	0.058 J	0.83	0.29 J
Carbon Tetrachloride	0.17	0.077 J	1.1	0.48 J
Benzene	0.17	0.36	0.55	1.1
Toluene	0.17	1.1	0.64	4.2
Ethyl Benzene	0.17	0.17	0.74	0.74
m,p-Xylene	0.17	0.64	0.74	2.8
o-Xylene	0.17	0.21	0.74	0.90
1,3,5-Trimethylbenzene	0.17	0.052 J	0.84	0.26 J
1,2,4-Trimethylbenzene	0.17	0.16 J	0.84	0.81 J
1,4-Dichlorobenzene	0.17	0.048 J	1.0	0.29 J
Methylene Chloride	0.34	0.16 J	1.2	0.55 J
Acetone	0.86	4.7	2.0	11
Carbon Disulfide	0.86	0.31 J	2.7	0.98 J
2-Propanol	0.86	1.5	2.1	3.6
2-Butanone (Methyl Ethyl Ketone)	0.86	4.2	2.5	12
Hexane	0.86	0.32 J	3.0	1.1 J
Tetrahydrofuran	0.86	3.4	2.5	9.9
4-Ethyltoluene	0.86	0.18 J	4.2	0.88 J
Ethanol	0.86	2.7	1.6	5.2
Heptane	0.86	0.24 J	3.5	0.98 J
Propylbenzene	0.86	0.098 J	4.2	0.48 J

Client Sample ID: #9945, Station 10, CFB Air Compressors

Lab ID#: 0507551-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.5
Chloromethane	0.17	0.47	0.35	0.98
Freon 11	0.17	0.27	0.96	1.5
Chloroform	0.17	0.077 J	0.83	0.38 J
Carbon Tetrachloride	0.17	0.087 J	1.1	0.54 J
Benzene	0.17	0.31	0.55	0.98
Toluene	0.17	0.56	0.64	2.1
Ethyl Benzene	0.17	0.10 J	0.74	0.44 J
m,p-Xylene	0.17	0.34	0.74	1.5
o-Xylene	0.17	0.11 J	0.74	0.49 J
1,2,4-Trimethylbenzene	0.17	0.081 J	0.84	0.40 J

Client Sample ID: #9945, Station 10, CFB Air Compressors**Lab ID#: 0507551-02A**

Methylene Chloride	0.34	0.18 J	1.2	0.64 J
Acetone	0.86	4.2	2.0	10
Carbon Disulfide	0.86	0.14 J	2.7	0.45 J
2-Propanol	0.86	1.3	2.1	3.1
2-Butanone (Methyl Ethyl Ketone)	0.86	0.49 J	2.5	1.4 J
Hexane	0.86	0.23 J	3.0	0.82 J
Tetrahydrofuran	0.86	0.16 J	2.5	0.46 J
4-Ethyltoluene	0.86	0.091 J	4.2	0.45 J
Ethanol	0.86	2.2	1.6	4.2
Heptane	0.86	0.18 J	3.5	0.75 J

Client Sample ID: #11884, Station 11, WWTP Control Room**Lab ID#: 0507551-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.48	0.84	2.4
Chloromethane	0.17	0.51	0.35	1.0
Bromomethane	0.17	0.088 J	0.66	0.34 J
Freon 11	0.17	0.26	0.96	1.5
Chloroform	0.17	0.036 J	0.83	0.18 J
Carbon Tetrachloride	0.17	0.083 J	1.1	0.52 J
Benzene	0.17	0.38	0.55	1.2
Toluene	0.17	0.67	0.64	2.5
Ethyl Benzene	0.17	0.13 J	0.74	0.56 J
m,p-Xylene	0.17	0.37	0.74	1.6
o-Xylene	0.17	0.12 J	0.74	0.52 J
1,2,4-Trimethylbenzene	0.17	0.097 J	0.84	0.48 J
Methylene Chloride	0.34	0.23 J	1.2	0.80 J
Acetone	0.86	4.6	2.0	11
Carbon Disulfide	0.86	0.20 J	2.7	0.61 J
2-Propanol	0.86	0.46 J	2.1	1.1 J
2-Butanone (Methyl Ethyl Ketone)	0.86	0.47 J	2.5	1.4 J
Hexane	0.86	0.31 J	3.0	1.1 J
Tetrahydrofuran	0.86	0.17 J	2.5	0.50 J
4-Ethyltoluene	0.86	0.11 J	4.2	0.53 J
Ethanol	0.86	2.1	1.6	4.0
Heptane	0.86	0.15 J	3.5	0.60 J
Naphthalene	0.86	0.61 J	4.5	3.2 J

Client Sample ID: #13842, Station 12, Outdoors Western**Lab ID#: 0507551-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.50	0.86	2.5
Chloromethane	0.18	0.46	0.36	0.96
Freon 11	0.18	0.27	0.98	1.5
Carbon Tetrachloride	0.18	0.083 J	1.1	0.52 J

Client Sample ID: #13842, Station 12, Outdoors Western

Lab ID#: 0507551-04A

Benzene	0.18	0.66	0.56	2.1
Toluene	0.18	1.5	0.66	5.7
Ethyl Benzene	0.18	0.15 J	0.76	0.65 J
m,p-Xylene	0.18	0.42	0.76	1.8
o-Xylene	0.18	0.092 J	0.76	0.40 J
1,2,4-Trimethylbenzene	0.18	0.16 J	0.86	0.79 J
Methylene Chloride	0.35	0.29 J	1.2	1.0 J
Acetone	0.88	7.3	2.1	17
Carbon Disulfide	0.88	0.61 J	2.7	1.9 J
2-Propanol	0.88	1.0	2.2	2.5
2-Butanone (Methyl Ethyl Ketone)	0.88	0.58 J	2.6	1.7 J
Hexane	0.88	0.76 J	3.1	2.7 J
Cyclohexane	0.88	0.32 J	3.0	1.1 J
4-Methyl-2-pentanone	0.88	0.062 J	3.6	0.25 J
4-Ethyltoluene	0.88	0.13 J	4.3	0.65 J
Ethanol	0.88	3.9	1.6	7.4
Heptane	0.88	0.18 J	3.6	0.74 J
Propylbenzene	0.88	0.094 J	4.3	0.46 J
Naphthalene	0.88	1.5	4.6	7.9

Client Sample ID: #13842, Station 12, Outdoors Western Duplicate

Lab ID#: 0507551-04AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.48	0.86	2.4
Chloromethane	0.18	0.43	0.36	0.88
Freon 11	0.18	0.26	0.98	1.5
Carbon Tetrachloride	0.18	0.078 J	1.1	0.49 J
Benzene	0.18	0.66	0.56	2.1
Toluene	0.18	1.5	0.66	5.7
Ethyl Benzene	0.18	0.16 J	0.76	0.68 J
m,p-Xylene	0.18	0.41	0.76	1.8
o-Xylene	0.18	0.10 J	0.76	0.44 J
1,2,4-Trimethylbenzene	0.18	0.16 J	0.86	0.79 J
Methylene Chloride	0.35	0.30 J	1.2	1.0 J
Acetone	0.88	7.3	2.1	17
Carbon Disulfide	0.88	0.62 J	2.7	1.9 J
2-Propanol	0.88	0.89	2.2	2.2
2-Butanone (Methyl Ethyl Ketone)	0.88	0.58 J	2.6	1.7 J
Hexane	0.88	0.75 J	3.1	2.6 J
Cyclohexane	0.88	0.31 J	3.0	1.1 J
4-Methyl-2-pentanone	0.88	0.060 J	3.6	0.24 J
4-Ethyltoluene	0.88	0.13 J	4.3	0.64 J
Ethanol	0.88	3.5	1.6	6.6
Heptane	0.88	0.18 J	3.6	0.72 J
Propylbenzene	0.88	0.10 J	4.3	0.49 J
Naphthalene	0.88	1.3	4.6	6.9

Client Sample ID: #20945, Station 13, Outdoors Southern**Lab ID#: 0507551-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.5
Chloromethane	0.17	0.44	0.35	0.90
Bromomethane	0.17	0.097 J	0.66	0.38 J
Freon 11	0.17	0.26	0.96	1.5
Carbon Tetrachloride	0.17	0.079 J	1.1	0.50 J
Benzene	0.17	0.24	0.55	0.78
Toluene	0.17	0.36	0.64	1.3
Ethyl Benzene	0.17	0.067 J	0.74	0.29 J
m,p-Xylene	0.17	0.20	0.74	0.88
Methylene Chloride	0.34	0.18 J	1.2	0.61 J
Acetone	0.86	3.8	2.0	9.0
Carbon Disulfide	0.86	0.12 J	2.7	0.37 J
2-Propanol	0.86	0.51 J	2.1	1.2 J
2-Butanone (Methyl Ethyl Ketone)	0.86	0.41 J	2.5	1.2 J
Hexane	0.86	0.19 J	3.0	0.68 J
4-Ethyltoluene	0.86	0.042 J	4.2	0.20 J
Ethanol	0.86	2.6	1.6	4.8
Heptane	0.86	0.084 J	3.5	0.34 J

Client Sample ID: #23989, Station 14, Outdoors by Guard Shack**Lab ID#: 0507551-06A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.49	0.88	2.4
Chloromethane	0.18	0.52	0.37	1.1
Freon 11	0.18	0.26	1.0	1.4
Carbon Tetrachloride	0.18	0.083 J	1.1	0.52 J
Benzene	0.18	0.25	0.57	0.79
Toluene	0.18	0.50	0.67	1.9
Ethyl Benzene	0.18	0.10 J	0.78	0.45 J
m,p-Xylene	0.18	0.26	0.78	1.1
o-Xylene	0.18	0.074 J	0.78	0.32 J
1,2,4-Trimethylbenzene	0.18	0.054 J	0.88	0.27 J
Methylene Chloride	0.36	0.15 J	1.2	0.51 J
Acetone	0.90	5.4	2.1	13
Carbon Disulfide	0.90	1.2	2.8	3.7
2-Propanol	0.90	1.2	2.2	3.0
2-Butanone (Methyl Ethyl Ketone)	0.90	1.2	2.6	3.4
Hexane	0.90	0.19 J	3.2	0.67 J
4-Ethyltoluene	0.90	0.056 J	4.4	0.28 J
Ethanol	0.90	2.3	1.7	4.4
Heptane	0.90	0.12 J	3.7	0.48 J

Client Sample ID: #94306, Station 15, Outdoors Northwest**Lab ID#: 0507551-07A**

Client Sample ID: #94306, Station 15, Outdoors Northwest

Lab ID#: 0507551-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.20	0.51	0.97	2.5
Chloromethane	0.20	0.59	0.40	1.2
Freon 11	0.20	0.29	1.1	1.6
Carbon Tetrachloride	0.20	0.072 J	1.2	0.45 J
Benzene	0.20	0.31	0.63	0.99
Toluene	0.20	0.64	0.74	2.4
Tetrachloroethene	0.20	0.064 J	1.3	0.44 J
Ethyl Benzene	0.20	0.14 J	0.85	0.59 J
m,p-Xylene	0.20	0.43	0.85	1.9
o-Xylene	0.20	0.15 J	0.85	0.64 J
1,2,4-Trimethylbenzene	0.20	0.14 J	0.96	0.67 J
Methylene Chloride	0.39	0.18 J	1.4	0.62 J
Acetone	0.98	4.1	2.3	9.8
Carbon Disulfide	0.98	0.11 J	3.0	0.34 J
2-Propanol	0.98	0.48 J	2.4	1.2 J
2-Butanone (Methyl Ethyl Ketone)	0.98	0.44 J	2.9	1.3 J
Hexane	0.98	0.31 J	3.4	1.1 J
Tetrahydrofuran	0.98	0.10 J	2.9	0.30 J
Cyclohexane	0.98	0.14 J	3.4	0.48 J
4-Ethyltoluene	0.98	0.14 J	4.8	0.70 J
Ethanol	0.98	2.2	1.8	4.1
Heptane	0.98	0.24 J	4.0	0.96 J

AIR TOXICS LTD.

Client Sample ID: #9928, Station 9, CFB chiller

Lab ID#: 0507551-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080314	Date of Collection: 7/21/05
Dil. Factor:	1.71	Date of Analysis: 8/4/05 04:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.4
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.50	0.35	1.0
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.46	0.96	2.6
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.058 J	0.83	0.29 J
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.077 J	1.1	0.48 J
Benzene	0.17	0.36	0.55	1.1
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	1.1	0.64	4.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.17	0.74	0.74
m,p-Xylene	0.17	0.64	0.74	2.8
o-Xylene	0.17	0.21	0.74	0.90
Styrene	0.17	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	0.052 J	0.84	0.26 J
1,2,4-Trimethylbenzene	0.17	0.16 J	0.84	0.81 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	0.048 J	1.0	0.29 J
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.16 J	1.2	0.55 J
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	4.7	2.0	11
Carbon Disulfide	0.86	0.31 J	2.7	0.98 J

AIR TOXICS LTD.

Client Sample ID: #9928, Station 9, CFB chiller

Lab ID#: 0507551-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080314	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 04:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	1.5	2.1	3.6
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	4.2	2.5	12
Hexane	0.86	0.32 J	3.0	1.1 J
Tetrahydrofuran	0.86	3.4	2.5	9.9
Cyclohexane	0.86	Not Detected	2.9	Not Detected
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	Not Detected	3.5	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.18 J	4.2	0.88 J
Ethanol	0.86	2.7	1.6	5.2
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.24 J	3.5	0.98 J
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	0.098 J	4.2	0.48 J
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

Client Sample ID: #9945, Station 10, CFB Air Compressors

Lab ID#: 0507551-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080313	Date of Collection: 7/21/05
Dil. Factor:	1.71	Date of Analysis: 8/4/05 03:49 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.5
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.47	0.35	0.98
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.27	0.96	1.5
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.077 J	0.83	0.38 J
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.087 J	1.1	0.54 J
Benzene	0.17	0.31	0.55	0.98
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	0.56	0.64	2.1
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.10 J	0.74	0.44 J
m,p-Xylene	0.17	0.34	0.74	1.5
o-Xylene	0.17	0.11 J	0.74	0.49 J
Styrene	0.17	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	0.081 J	0.84	0.40 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.18 J	1.2	0.64 J
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	4.2	2.0	10
Carbon Disulfide	0.86	0.14 J	2.7	0.45 J

AIR TOXICS LTD.

Client Sample ID: #9945, Station 10, CFB Air Compressors

Lab ID#: 0507551-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080313	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 03:49 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	1.3	2.1	3.1
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.49 J	2.5	1.4 J
Hexane	0.86	0.23 J	3.0	0.82 J
Tetrahydrofuran	0.86	0.16 J	2.5	0.46 J
Cyclohexane	0.86	Not Detected	2.9	Not Detected
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	Not Detected	3.5	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.091 J	4.2	0.45 J
Ethanol	0.86	2.2	1.6	4.2
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.18 J	3.5	0.75 J
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	Not Detected	4.2	Not Detected
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

AIR TOXICS LTD.

Client Sample ID: #11884, Station 11, WWTP Control Room

Lab ID#: 0507551-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080312	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 02:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.48	0.84	2.4
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.51	0.35	1.0
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	0.088 J	0.66	0.34 J
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.26	0.96	1.5
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.036 J	0.83	0.18 J
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.083 J	1.1	0.52 J
Benzene	0.17	0.38	0.55	1.2
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	0.67	0.64	2.5
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.13 J	0.74	0.56 J
m,p-Xylene	0.17	0.37	0.74	1.6
o-Xylene	0.17	0.12 J	0.74	0.52 J
Styrene	0.17	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	0.097 J	0.84	0.48 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.23 J	1.2	0.80 J
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	4.6	2.0	11
Carbon Disulfide	0.86	0.20 J	2.7	0.61 J

AIR TOXICS LTD.

Client Sample ID: #11884, Station 11, WWTP Control Room

Lab ID#: 0507551-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080312	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 02:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	0.46 J	2.1	1.1 J
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.47 J	2.5	1.4 J
Hexane	0.86	0.31 J	3.0	1.1 J
Tetrahydrofuran	0.86	0.17 J	2.5	0.50 J
Cyclohexane	0.86	Not Detected	2.9	Not Detected
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	Not Detected	3.5	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.11 J	4.2	0.53 J
Ethanol	0.86	2.1	1.6	4.0
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.15 J	3.5	0.60 J
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	Not Detected	4.2	Not Detected
Naphthalene	0.86	0.61 J	4.5	3.2 J

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

AIR TOXICS LTD.

Client Sample ID: #13842, Station 12, Outdoors Western

Lab ID#: 0507551-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080310	Date of Collection:	7/21/05
Dil. Factor:	1.75	Date of Analysis:	8/4/05 01:00 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.50	0.86	2.5
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.46	0.36	0.96
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	Not Detected	0.68	Not Detected
Chloroethane	0.18	Not Detected	0.46	Not Detected
Freon 11	0.18	0.27	0.98	1.5
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Carbon Tetrachloride	0.18	0.083 J	1.1	0.52 J
Benzene	0.18	0.66	0.56	2.1
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
Toluene	0.18	1.5	0.66	5.7
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.15 J	0.76	0.65 J
m,p-Xylene	0.18	0.42	0.76	1.8
o-Xylene	0.18	0.092 J	0.76	0.40 J
Styrene	0.18	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.16 J	0.86	0.79 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
Methylene Chloride	0.35	0.29 J	1.2	1.0 J
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
1,3-Butadiene	0.88	Not Detected	1.9	Not Detected
Acetone	0.88	7.3	2.1	17
Carbon Disulfide	0.88	0.61 J	2.7	1.9 J

AIR TOXICS LTD.

Client Sample ID: #13842, Station 12, Outdoors Western

Lab ID#: 0507551-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080310	Date of Collection:	7/21/05
Dil. Factor:	1.75	Date of Analysis:	8/4/05 01:00 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.88	1.0	2.2	2.5
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	0.58 J	2.6	1.7 J
Hexane	0.88	0.76 J	3.1	2.7 J
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Cyclohexane	0.88	0.32 J	3.0	1.1 J
1,4-Dioxane	0.88	Not Detected	3.2	Not Detected
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	0.88	0.062 J	3.6	0.25 J
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected
Bromoform	0.88	Not Detected	9.0	Not Detected
4-Ethyltoluene	0.88	0.13 J	4.3	0.65 J
Ethanol	0.88	3.9	1.6	7.4
Methyl tert-butyl ether	0.88	Not Detected	3.2	Not Detected
Heptane	0.88	0.18 J	3.6	0.74 J
Cumene	0.88	Not Detected	4.3	Not Detected
Propylbenzene	0.88	0.094 J	4.3	0.46 J
Naphthalene	0.88	1.5	4.6	7.9

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

Client Sample ID: #13842, Station 12, Outdoors Western Duplicate

Lab ID#: 0507551-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080311a	Date of Collection:	7/21/05
Dil. Factor:	1.75	Date of Analysis:	8/4/05 01:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.48	0.86	2.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.43	0.36	0.88
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
Bromomethane	0.18	Not Detected	0.68	Not Detected
Chloroethane	0.18	Not Detected	0.46	Not Detected
Freon 11	0.18	0.26	0.98	1.5
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Carbon Tetrachloride	0.18	0.078 J	1.1	0.49 J
Benzene	0.18	0.66	0.56	2.1
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
Toluene	0.18	1.5	0.66	5.7
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.16 J	0.76	0.68 J
m,p-Xylene	0.18	0.41	0.76	1.8
o-Xylene	0.18	0.10 J	0.76	0.44 J
Styrene	0.18	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.16 J	0.86	0.79 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
Methylene Chloride	0.35	0.30 J	1.2	1.0 J
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
1,3-Butadiene	0.88	Not Detected	1.9	Not Detected
Acetone	0.88	7.3	2.1	17
Carbon Disulfide	0.88	0.62 J	2.7	1.9 J

AIR TOXICS LTD.

Client Sample ID: #13842, Station 12, Outdoors Western Duplicate

Lab ID#: 0507551-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080311a	Date of Collection:	7/21/05
Dil. Factor:	1.75	Date of Analysis:	8/4/05 01:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.88	0.89	2.2	2.2
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	0.58 J	2.6	1.7 J
Hexane	0.88	0.75 J	3.1	2.6 J
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Cyclohexane	0.88	0.31 J	3.0	1.1 J
1,4-Dioxane	0.88	Not Detected	3.2	Not Detected
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	0.88	0.060 J	3.6	0.24 J
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected
Bromoform	0.88	Not Detected	9.0	Not Detected
4-Ethyltoluene	0.88	0.13 J	4.3	0.64 J
Ethanol	0.88	3.5	1.6	6.6
Methyl tert-butyl ether	0.88	Not Detected	3.2	Not Detected
Heptane	0.88	0.18 J	3.6	0.72 J
Cumene	0.88	Not Detected	4.3	Not Detected
Propylbenzene	0.88	0.10 J	4.3	0.49 J
Naphthalene	0.88	1.3	4.6	6.9

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

AIR TOXICS LTD.

Client Sample ID: #20945, Station 13, Outdoors Southern

Lab ID#: 0507551-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080309	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 12:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.50	0.84	2.5
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	0.44	0.35	0.90
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	0.097 J	0.66	0.38 J
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.26	0.96	1.5
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	0.079 J	1.1	0.50 J
Benzene	0.17	0.24	0.55	0.78
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	0.36	0.64	1.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.067 J	0.74	0.29 J
m,p-Xylene	0.17	0.20	0.74	0.88
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
Methylene Chloride	0.34	0.18 J	1.2	0.61 J
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected
1,3-Butadiene	0.86	Not Detected	1.9	Not Detected
Acetone	0.86	3.8	2.0	9.0
Carbon Disulfide	0.86	0.12 J	2.7	0.37 J

AIR TOXICS LTD.

Client Sample ID: #20945, Station 13, Outdoors Southern

Lab ID#: 0507551-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080309	Date of Collection:	7/21/05
Dil. Factor:	1.71	Date of Analysis:	8/4/05 12:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.86	0.51 J	2.1	1.2 J
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.41 J	2.5	1.2 J
Hexane	0.86	0.19 J	3.0	0.68 J
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
Cyclohexane	0.86	Not Detected	2.9	Not Detected
1,4-Dioxane	0.86	Not Detected	3.1	Not Detected
Bromodichloromethane	0.86	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.86	Not Detected	3.5	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected
Dibromochloromethane	0.86	Not Detected	7.3	Not Detected
Bromoform	0.86	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.86	0.042 J	4.2	0.20 J
Ethanol	0.86	2.6	1.6	4.8
Methyl tert-butyl ether	0.86	Not Detected	3.1	Not Detected
Heptane	0.86	0.084 J	3.5	0.34 J
Cumene	0.86	Not Detected	4.2	Not Detected
Propylbenzene	0.86	Not Detected	4.2	Not Detected
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

Client Sample ID: #23989, Station 14, Outdoors by Guard Shack

Lab ID#: 0507551-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080308	Date of Collection:	7/21/05
Dil. Factor:	1.79	Date of Analysis:	8/3/05 11:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.18	0.49	0.88	2.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.18	0.52	0.37	1.1
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
Bromomethane	0.18	Not Detected	0.70	Not Detected
Chloroethane	0.18	Not Detected	0.47	Not Detected
Freon 11	0.18	0.26	1.0	1.4
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Chloroform	0.18	Not Detected	0.87	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Carbon Tetrachloride	0.18	0.083 J	1.1	0.52 J
Benzene	0.18	0.25	0.57	0.79
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
Toluene	0.18	0.50	0.67	1.9
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.10 J	0.78	0.45 J
m,p-Xylene	0.18	0.26	0.78	1.1
o-Xylene	0.18	0.074 J	0.78	0.32 J
Styrene	0.18	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	0.054 J	0.88	0.27 J
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
Methylene Chloride	0.36	0.15 J	1.2	0.51 J
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
1,3-Butadiene	0.90	Not Detected	2.0	Not Detected
Acetone	0.90	5.4	2.1	13
Carbon Disulfide	0.90	1.2	2.8	3.7

AIR TOXICS LTD.

Client Sample ID: #23989, Station 14, Outdoors by Guard Shack

Lab ID#: 0507551-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080308	Date of Collection:	7/21/05
Dil. Factor:	1.79	Date of Analysis:	8/3/05 11:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.90	1.2	2.2	3.0
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	1.2	2.6	3.4
Hexane	0.90	0.19 J	3.2	0.67 J
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Cyclohexane	0.90	Not Detected	3.1	Not Detected
1,4-Dioxane	0.90	Not Detected	3.2	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
4-Methyl-2-pentanone	0.90	Not Detected	3.7	Not Detected
2-Hexanone	0.90	Not Detected	3.7	Not Detected
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
4-Ethyltoluene	0.90	0.056 J	4.4	0.28 J
Ethanol	0.90	2.3	1.7	4.4
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
Heptane	0.90	0.12 J	3.7	0.48 J
Cumene	0.90	Not Detected	4.4	Not Detected
Propylbenzene	0.90	Not Detected	4.4	Not Detected
Naphthalene	0.90	Not Detected	4.7	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

AIR TOXICS LTD.

Client Sample ID: #94306, Station 15, Outdoors Northwest

Lab ID#: 0507551-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080307	Date of Collection:	7/21/05
Dil. Factor:	1.96	Date of Analysis:	8/3/05 10:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.20	0.51	0.97	2.5
Freon 114	0.20	Not Detected	1.4	Not Detected
Chloromethane	0.20	0.59	0.40	1.2
Vinyl Chloride	0.20	Not Detected	0.50	Not Detected
Bromomethane	0.20	Not Detected	0.76	Not Detected
Chloroethane	0.20	Not Detected	0.52	Not Detected
Freon 11	0.20	0.29	1.1	1.6
1,1-Dichloroethene	0.20	Not Detected	0.78	Not Detected
Freon 113	0.20	Not Detected	1.5	Not Detected
1,1-Dichloroethane	0.20	Not Detected	0.79	Not Detected
cis-1,2-Dichloroethene	0.20	Not Detected	0.78	Not Detected
Chloroform	0.20	Not Detected	0.96	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected	1.1	Not Detected
Carbon Tetrachloride	0.20	0.072 J	1.2	0.45 J
Benzene	0.20	0.31	0.63	0.99
1,2-Dichloroethane	0.20	Not Detected	0.79	Not Detected
Trichloroethene	0.20	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.20	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.20	Not Detected	0.89	Not Detected
Toluene	0.20	0.64	0.74	2.4
trans-1,3-Dichloropropene	0.20	Not Detected	0.89	Not Detected
1,1,2-Trichloroethane	0.20	Not Detected	1.1	Not Detected
Tetrachloroethene	0.20	0.064 J	1.3	0.44 J
1,2-Dibromoethane (EDB)	0.20	Not Detected	1.5	Not Detected
Chlorobenzene	0.20	Not Detected	0.90	Not Detected
Ethyl Benzene	0.20	0.14 J	0.85	0.59 J
m,p-Xylene	0.20	0.43	0.85	1.9
o-Xylene	0.20	0.15 J	0.85	0.64 J
Styrene	0.20	Not Detected	0.83	Not Detected
1,1,2,2-Tetrachloroethane	0.20	Not Detected	1.3	Not Detected
1,3,5-Trimethylbenzene	0.20	Not Detected	0.96	Not Detected
1,2,4-Trimethylbenzene	0.20	0.14 J	0.96	0.67 J
1,3-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
1,4-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.20	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
Methylene Chloride	0.39	0.18 J	1.4	0.62 J
1,2,4-Trichlorobenzene	0.98	Not Detected	7.3	Not Detected
Hexachlorobutadiene	0.98	Not Detected	10	Not Detected
1,3-Butadiene	0.98	Not Detected	2.2	Not Detected
Acetone	0.98	4.1	2.3	9.8
Carbon Disulfide	0.98	0.11 J	3.0	0.34 J

AIR TOXICS LTD.

Client Sample ID: #94306, Station 15, Outdoors Northwest

Lab ID#: 0507551-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080307	Date of Collection:	7/21/05
Dil. Factor:	1.96	Date of Analysis:	8/3/05 10:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.98	0.48 J	2.4	1.2 J
trans-1,2-Dichloroethene	0.98	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.98	0.44 J	2.9	1.3 J
Hexane	0.98	0.31 J	3.4	1.1 J
Tetrahydrofuran	0.98	0.10 J	2.9	0.30 J
Cyclohexane	0.98	0.14 J	3.4	0.48 J
1,4-Dioxane	0.98	Not Detected	3.5	Not Detected
Bromodichloromethane	0.98	Not Detected	6.6	Not Detected
4-Methyl-2-pentanone	0.98	Not Detected	4.0	Not Detected
2-Hexanone	0.98	Not Detected	4.0	Not Detected
Dibromochloromethane	0.98	Not Detected	8.3	Not Detected
Bromoform	0.98	Not Detected	10	Not Detected
4-Ethyltoluene	0.98	0.14 J	4.8	0.70 J
Ethanol	0.98	2.2	1.8	4.1
Methyl tert-butyl ether	0.98	Not Detected	3.5	Not Detected
Heptane	0.98	0.24 J	4.0	0.96 J
Cumene	0.98	Not Detected	4.8	Not Detected
Propylbenzene	0.98	Not Detected	4.8	Not Detected
Naphthalene	0.98	Not Detected	5.1	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0507551-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 07:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	0.040 J	0.32	0.13 J
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Acetone	0.50	0.24 J	1.2	0.57 J
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0507551-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 07:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Propanol	0.50	0.14 J	1.2	0.33 J
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Tetrahydrofuran	0.50	0.081 J	1.5	0.24 J
Cyclohexane	0.50	Not Detected	1.7	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	0.50	0.28 J	2.6	1.5 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0507551-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 03:36 PM

Compound	% Recovery
Freon 12	98
Freon 114	97
Chloromethane	94
Vinyl Chloride	98
Bromomethane	94
Chloroethane	89
Freon 11	97
1,1-Dichloroethene	97
Freon 113	95
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	97
Chloroform	97
1,1,1-Trichloroethane	99
Carbon Tetrachloride	104
Benzene	91
1,2-Dichloroethane	102
Trichloroethene	99
1,2-Dichloropropane	99
cis-1,3-Dichloropropene	106
Toluene	100
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	98
Tetrachloroethene	99
1,2-Dibromoethane (EDB)	102
Chlorobenzene	99
Ethyl Benzene	100
m,p-Xylene	103
o-Xylene	102
Styrene	108
1,1,2,2-Tetrachloroethane	104
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	99
Methylene Chloride	90
1,2,4-Trichlorobenzene	102
Hexachlorobutadiene	101
1,3-Butadiene	93
Acetone	90
Carbon Disulfide	94

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0507551-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 03:36 PM

Compound	% Recovery
2-Propanol	95
trans-1,2-Dichloroethene	98
2-Butanone (Methyl Ethyl Ketone)	94
Hexane	94
Tetrahydrofuran	93
Cyclohexane	94
1,4-Dioxane	98
Bromodichloromethane	101
4-Methyl-2-pentanone	104
2-Hexanone	102
Dibromochloromethane	104
Bromoform	109
4-Ethyltoluene	99
Ethanol	89
Methyl tert-butyl ether	95
Heptane	100
Cumene	99
Propylbenzene	98
Naphthalene	125

Container Type: NA - Not Applicable

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	108	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0507551-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 04:31 PM

Compound	% Recovery
Freon 12	97
Freon 114	97
Chloromethane	94
Vinyl Chloride	95
Bromomethane	95
Chloroethane	82
Freon 11	97
1,1-Dichloroethene	97
Freon 113	95
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	83
Chloroform	93
1,1,1-Trichloroethane	86
Carbon Tetrachloride	94
Benzene	82
1,2-Dichloroethane	90
Trichloroethene	90
1,2-Dichloropropane	85
cis-1,3-Dichloropropene	100
Toluene	96
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	93
Tetrachloroethene	97
1,2-Dibromoethane (EDB)	97
Chlorobenzene	95
Ethyl Benzene	95
m,p-Xylene	101
o-Xylene	98
Styrene	140 Q
1,1,2,2-Tetrachloroethane	95
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	89
alpha-Chlorotoluene	81
1,2-Dichlorobenzene	90
Methylene Chloride	91
1,2,4-Trichlorobenzene	71
Hexachlorobutadiene	68 Q
1,3-Butadiene	100
Acetone	96
Carbon Disulfide	102

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0507551-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7080303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/3/05 04:31 PM

Compound	% Recovery
2-Propanol	114
trans-1,2-Dichloroethene	120
2-Butanone (Methyl Ethyl Ketone)	100
Hexane	99
Tetrahydrofuran	97
Cyclohexane	100
1,4-Dioxane	102
Bromodichloromethane	104
4-Methyl-2-pentanone	101
2-Hexanone	87
Dibromochloromethane	113
Bromoform	131
4-Ethyltoluene	88
Ethanol	85
Methyl tert-butyl ether	100
Heptane	106
Cumene	107
Propylbenzene	116
Naphthalene	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	% Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	109	70-130



Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

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CHAIN-OF-CUSTODY RECORD

Contact Person Scott Turkle
Company Clayton Group Services Email sturkle@claytongrp.ca
Address 1500N. Irving, Suite 448 City Portland State OR Zip 97232
Phone 971.244.1200 Fax 971.244.1209

Collected by: (Signature) [Signature]

Project Info:		Turn Around Time:	Lab Use Only
P.O. # _____	Project # <u>65-06004.00</u>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	Pressurized by: _____
Project Name <u>Hahn-SMTronic</u>			Date: _____
			Pressurization Gas: _____ N ₂ He

Lab I.D.	Field Sample I.D. (Location)	Date	Time	Analyses Requested	Canister Pressure/Vacuum			
					Initial	Final	Receipt	Final (psi)
01A	#9928, Station 9, CFB Chiller	7/21/05	9:02-5:02	Modified TO-15 and ^{Low Level} Naphthalene	27.5	4.3		
02A	#9945, Station 10 CFB Air Compressors	7/21/05	8:52-4:52	" "	30.0	7.2		
03A	#11884, Station 11, WWTP Control Room	7/21/05	8:31-4:31	" "	28.5	6.8		
04A	#13842, Station 12, outdoors Western	7/21/05	8:22- 4:22 5:11	" "	30.0	6.8		
05A	#20945, Station 13, outdoors Southern	7/21/05	8:11-4:11	" "	27.8	5.8		
06A	#23989, Station 14, outdoors by Guard Shack	7/21/05	7:44-3:44	" "	30.0	7.3		
07A	#94306, Station 15, outdoors North west	7/21/05	9:12-5:12	" "	30.0	8.5		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>7/22/05 12:50pm</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>7/25/05 1010</u>	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>FedEx</u>	<u>7911 4616 9346</u>	<u>—</u>	<u>Good</u>	Yes No <u>None</u>	<u>0507551</u>